Russound®

CAV6.6-S2 System

6-Zone, 6-Source
Audio/Video Controller Amplifier

INSTRUCTION MANUAL

IMPORTANT SAFEGUARDS

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER - SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

POWER CORD NOTICE FOR INTERNATIONAL OPERATION
For 230V, 50Hz operation please select the power cord for your area. Select the plug for your area at one end and a IEC320 connector at the other. It is not necessary to make any other changes. If you have any questions please call Russound Inc. at 1-800-638-8055 or 603-659-5170

Safety Instructions:

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance in the operating instructions should be adhered to.
4. Follow Instructions - All operating and user instructions should be followed.
5. Water and Moisture - The appliance should not be used near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.
7. Wall or ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - Precaution should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:

    A. The power supply cord or the plug has been damaged; or

    B. Objects have fallen, liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or

    D. The appliance does not appear to operate normally; or

    E. The appliance has been dropped or the enclosure is damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Precautions:

1. Power – WARNING: BEFORE TURNING ON THE POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.
   All models are designed for use with either AC120V, 60Hz or AC240, 50Hz voltages. The unit will autoswitch to either of these voltages
2. Do Not Touch The CAV6.6 With Wet Hands – Do not handle the CAV6.6 or power cord when your hands are wet or damp. If water or any other liquid enters the CAV6.6 cabinet, take the CAV6.6 to a qualified service person for inspection.
3. Location of CAV6.6 – Place the CAV6.6 in a well - ventilated location. Take special care to provide plenty of ventilation on all sides of the CAV6.6 especially when it is placed in an audio rack. If ventilation is blocked, the CAV6.6 may overheat and malfunction. Do not expose the CAV6.6 to direct sun light or heating units as the CAV6.6 internal components temperature may rise and shorten the life of the components. Avoid damp and dusty places.
4. Care – From time to time you should wipe off the front and side panels of the cabinet with a soft cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since this may damage the finish or remove the panel lettering.

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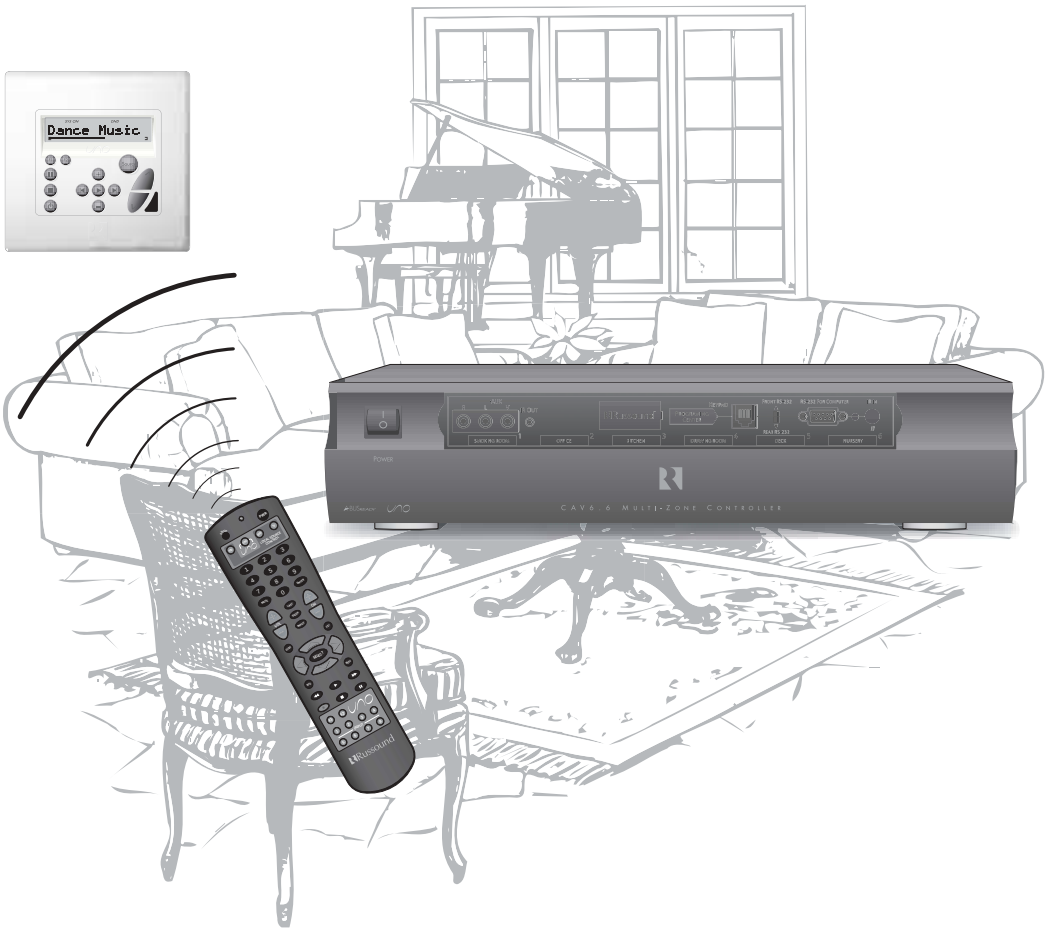
USER SECTION

Component Guides

Explains front panel features of the CAV6.6 controller,
UNO-S2 keypad, and UNO-LRC1 remote control.

Operation

Step-by-step outline of the system's normal operation,
plus a look at adjustable features available through the User Menu.



PRODUCT INTRODUCTION

Thank you for choosing the Russound® CAV6.6-S2 System to enhance your home with distributed audio and video. This system's state-of-the-art features and components blend seamlessly with your unique lifestyle and preferences.

Besides distributing and controlling six A/V sources to six rooms (zones), your CAV6.6-S2 System offers many features that increase your enjoyment of living. Here are several that you may find particularly beneficial.

Favorites
The UNO™-S2 keypad's F1 and F2 buttons are preset favorites. These easy-to-set buttons make it possible to hear your favorite radio station or watch your favorite satellite channel at just the right volume in your room with just a button push. Want something new? Just re-save the Favorite with a new choice.

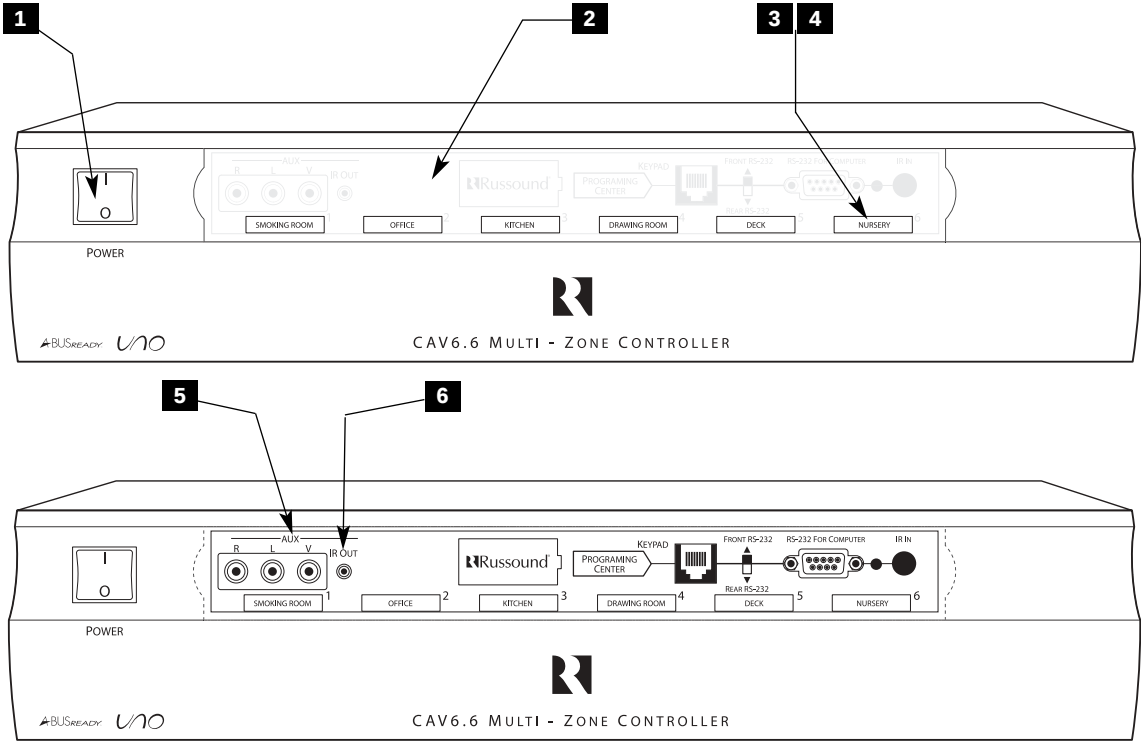
Do Not Disturb
The Do Not Disturb mode prevents unwanted interruptions in your room and stops changes to your selected A/V source. You may have a nursery or study that you want to keep quiet, or maybe you are watching a DVD and don't want it interrupted. Simply set the Do Not Disturb mode to "on" using the User Menu, and be free from paging, Party Mode interaction and system-wide functions like "All On" or "All Off."

Party Mode
Ready to set the mood? In Party Mode, you just pick the source and the sound settings and hear the music throughout all the rooms. The Master keypad simultaneously controls all the keypads in all the rooms to effortlessly select or control the components. A great benefit of the Party Mode feature is the ability to transfer the Master keypad mode to any keypad in the system. If the living room is the center of the party, use that room's keypad as Master. If the party moves to the sunroom and porch, that room's keypad can be set to Master instead.

Front (Aux) A/V In
This handy feature lets you easily hook up an additional temporary audio/video source through the front of the controller. This way, your teenager can set up a game console when his friends come over, and easily take it down without having to leave the games set up in the living room. Or your family can watch the video camera playback of the holiday gathering while everyone is still there.

Here at Russound we are proud to continue providing innovative and intuitive A/V product solutions to the world. When you link the industry-leading CAV6.6-S2 system with Russound's commitment to its products and customers, you have truly made – "the right connection."

CAV6.6 Controller-Front Panel



1 MAIN POWER SWITCH - Supplies power to the CAV6.6

2 REMOVABLE COVER LENS - Covers the connections on the front of the CAV6.6

3 ROOM LED ON/OFF INDICATORS - Indicates when a room is on (green) or off (red)

4 ROOM LABEL WINDOW - Holds the selected room Label (included)

5 AUX A/V LINE INPUTS - Supports connection of a seventh A/V source to the CAV6.6

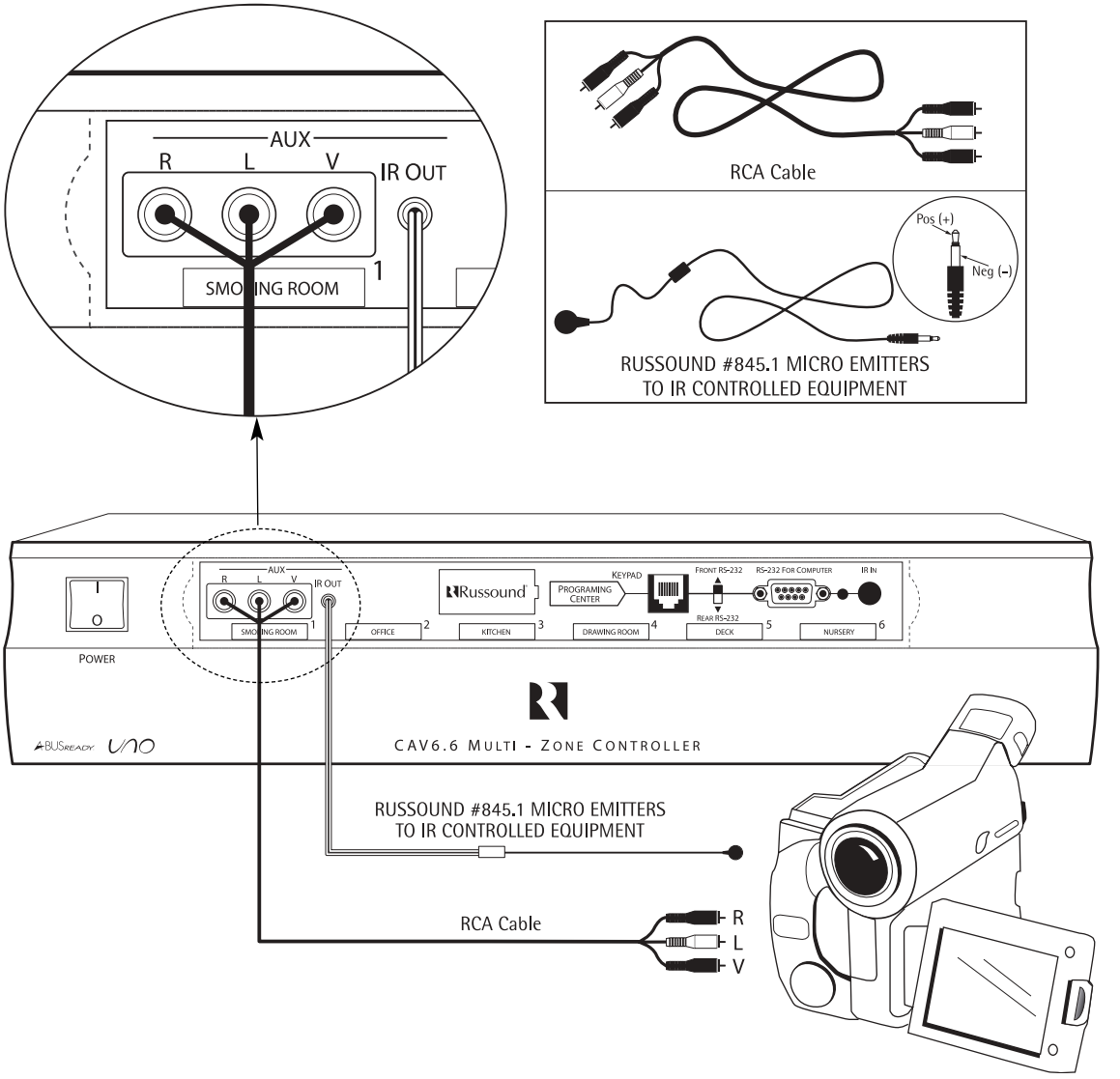
6 AUX IR OUT PORT - Connects IR emitter for IR control of the Aux A/V source component

CAV6.6 Controller-Front Panel

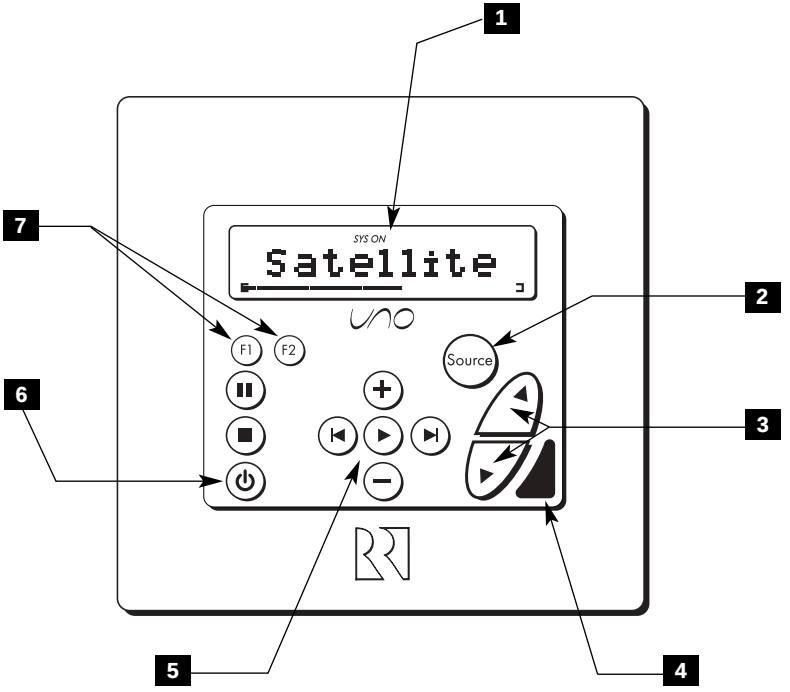
Front A/V Aux Connections

The Aux Input is located to the right of the power switch on the front panel. Connect the Left, Right, and Video Input Connectors to the source component using quality RCA signal cables.

The Aux IR jack adjacent to the line input accepts an IR Emitter with a 1/8" plug (e.g., Russound 845.1 IR emitter). The emitter's other end attaches to the IR window of the component to control the auxiliary source.



UNO-S2 Keypad-Front Panel



1 LCD PANEL - 12-character backlit display shows status of the room, source, volume, and more

2 SOURCE SELECT BUTTON - Scrolls through the sources directly connected to the CAV6.6. Press and hold brings up the USER MENU for loudness, bass, treble, etc.

3 VOLUME UP/DOWN BUTTONS - Raises and lowers the volume for the room

4 IR RECEIVER - Receives IR signals and passes them to the controller and source equipment. Also used when operating the UNO Keypad by using the UNO-LRC1 remote

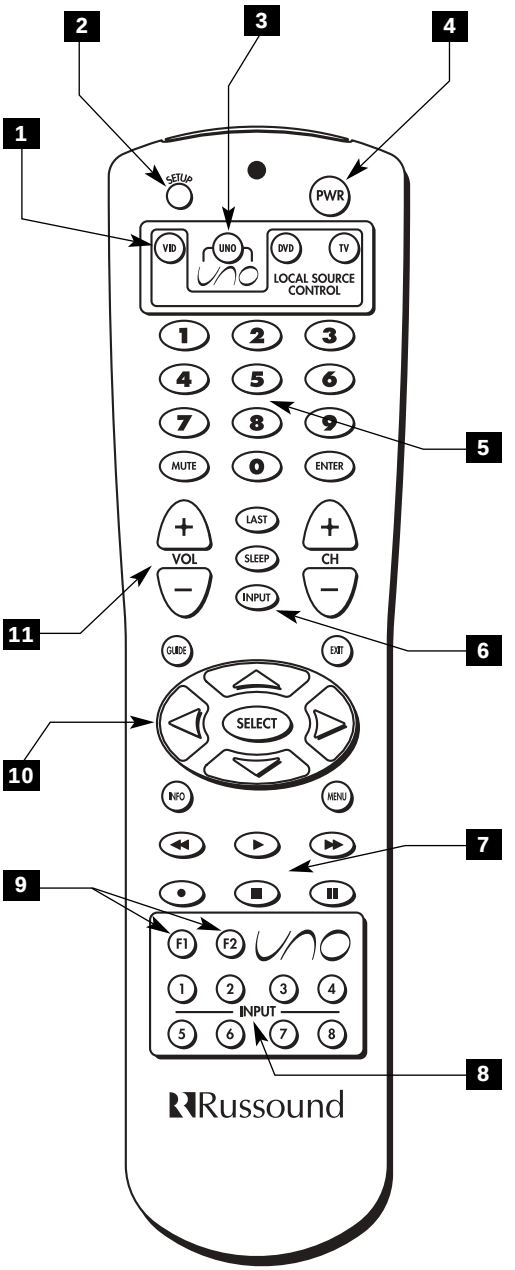
5 COMMAND KEYS - Pressing the command keys controls the source equipment

6 POWER BUTTON - Turns room ON or OFF when pressed once, press and hold a second time will turn on or off all CAV6.6 rooms

7 F1 AND F2 BUTTONS - Selects Favorite 1 or Favorite 2 - preset user-selected favorite settings per room

USER
COMPONENT GUIDE

UNO-LRC1 Remote Control



1 LOCAL DEVICE BUTTONS - Select local source to be controlled by UNO-LRC1.

2 SETUP - Use for programming UNO-LRC1 using the built-in library or by learning-in codes.

3 UNO SOURCE BUTTON - Selects UNO Keypad for control by UNO-LRC1.

4 ROOM ON/OFF - Turns room on and off while in the UNO mode.

5 NUMBER BUTTONS - Buttons (0-9) for direct selection of channels or tracks.

6 INPUT - Scrolls through sources connected to the CAV6.6 while in the UNO mode.

7 COMMAND KEYS - Control the VCR, DVD, or CD player with these buttons.

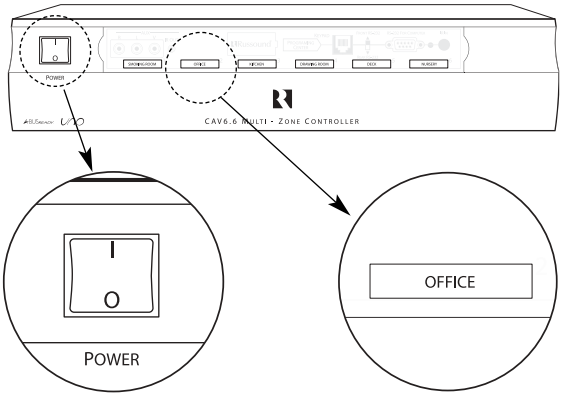
8 INPUT - Directly select A/V sources connected to the CAV6.6 while in the UNO mode.

9 F1 AND F2 BUTTONS - Selects Favorite 1 or Favorite 2 preset selections.

10 CURSOR KEYS - Issues IR commands for source equipment, allowing movement through menus and program screens.

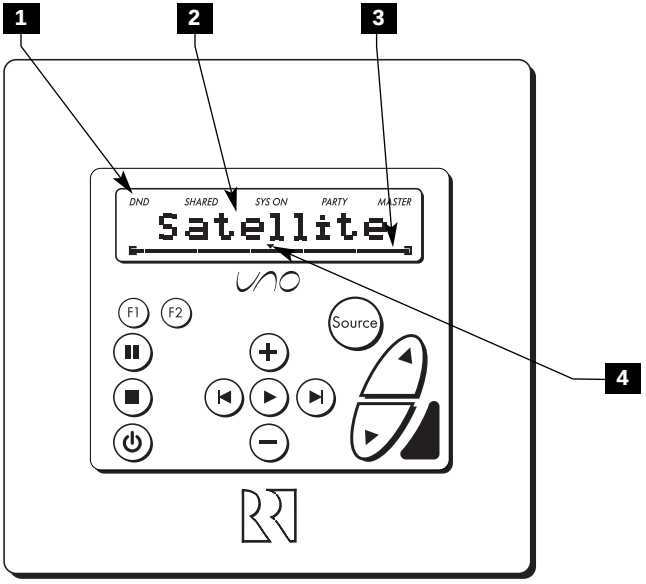
11 VOLUME UP/DOWN - Raises and lowers the volume for the room you are in.

CAV6.6 Controller



Main Power and Zone Status
The power switch for the CAV6.6 controller is "on" in the up position. Any active room is indicated on the front of the controller by a green backlit label, which shows red when the room is inactive. In most basic installations, all functions and room settings are controlled through the corresponding UNO Systems Keypads.

UNO-S2 Keypad



1 MODE:
"DND"- Do Not Disturb
"SHARED"- Same source selected in multiple rooms
"SYS-ON"- Indicates system on
"PARTY"- Party Mode enabled
"MASTER"- Master Keypad in Party Mode

2 12-character display

3 Volume Indicator

4 Indicates the middle of setting range

- **POWER**
- **STOP**
- **PAUSE**
- **FAVORITE 1**
- **FAVORITE 2**
- **SOURCE**
- **VOLUME UP**
- **VOLUME DOWN**
- **DISC, CHANNEL UP**
- **DISC, CHANNEL DOWN**
- **FORWARD**
- **REVERSE**
- **PLAY**
- **IR RECEIVER**

USER
NORMAL OPERATION

UNO-S2 Keypad

Zone On/Off

Press and release ⏻ to turn on the UNO System Keypad. This also turns on the corresponding CAV6.6's room, and any presets previously assigned will be activated, including settings for bass, volume, last source selected, etc. Press and release ⏻ to turn off the UNO System Keypad. This will also put the corresponding CAV6.6's room into a standby state.

System All On/Off

An "All On" command is issued by pressing ⏻ and holding for 3 seconds, after an initial room has been turned on. An "All Off" command can be issued to all rooms by pressing and holding ⏻ after the room has been turned off.

System On Indicator

When the room is off, but the system is on in another room, ⏻ is illuminated by a green backlight and the "SYS ON" icon remains visible.

Source Select Button

Source scrolls through the six A/V source inputs and the Aux source. To change sources, press and release Source. As the sources are sequentially selected, each source's name appears on the keypad LCD panel. When a source is selected in more than one room, the "SHARED" icon will appear on all UNO Keypads using that source.

Source is also used to enter the User Menu with a press and hold action. (See next page for User Menu)

Volume Up/Down Buttons

The room's audio output is adjusted using .

F1 and F2 Buttons

The F1 and F2 buttons are user favorite presets. These presets can be selected at any time to recall source selection, volume, and favorite channel, disk, etc. To store a favorite preset: first, adjust the room settings and select a source to be stored. Next, press and hold the desired F1 or F2 button until SAVED is displayed on the LCD panel. Now a press and release of the button will recall the favorite preset. To set a favorite numbered disk or channel, use ⊕ or ⊖ to select a disk or channel (e.g., channel 45). Wait for the keypad to show the source name, then press and hold the F1 or F2 within 15 seconds of setting the numeric selection to save the setting.

Command Keys

The command keys allow control of the selected source at the UNO Keypad. The command keys are activated with a press and release, or press and hold to access secondary functions.

⊕ ⊖ ⏭ ⏮ ▶ ⏹ ⏸

UNO-S2 User Menu Operation

The User Menu allows the user to adjust the audio properties and control functions of a particular room.

The following keys are used to navigate and make changes while using the User Menu:

To enter the User Menu, press and hold Source during normal operation. To exit the User Menu, press and release Source.

⊕ Adjust feature setting (increment).
⊖ Adjust feature setting (decrement).
⏭ Go to next feature.
⏮ Go to previous feature.
▶ View current feature setting.

The following features make up the User Menu:

BASS ⏭ TREBLE ⏭ LOUDNESS ⏭ BALANCE ⏭ TURN ON VOL ⏭ BG COLOR ⏭ DO NOT DSTRB ⏭ PARTY MODE ⏭ FRONT A/V IN ⏭

Feature and Setting:

1. BASS
-10 < Bass:Flat > +10

2. TREBLE
-10 < Treble:Flat > +10

3. LOUDNESS (more bass, fuller sound)
On or Off

4. BALANCE
Left -10 < Center > Right +10

5. TURN ON VOL (default room volume level)
0 to 100

6. BG COLOR (keypad background light)
Amber or Green or Off

7. DO NOT DSTRB - On or Off (default)

Do Not Disturb means do not disturb this room or selected source. This stops pages from being sent to this room, stops an “All Off," "All On" or Party Mode command from affecting this room.
When another UNO Systems Keypad selects the same source, a DND icon will appear alerting the user the source is in Do Not Disturb mode.

8. PARTY MODE - Master (Enable) or Off (Disable)

When in “PARTY MODE” the system is primarily controlled by a “MASTER” keypad. Party Mode links all rooms to the same source which is selected by the Master Keypad room. Any keypad in the system can become a Master keypad (if enabled) but only one Master Keypad may exist at a time in Party Mode. Selecting Master keypad mode from another keypad will transfer Master keypad control to that room and release it from the first. When the source selected in the Master keypad room is changed then the source for all rooms changes as well.
Volume level changes at the Master Keypad will be reflected in all rooms in Party Mode. Non-Master zones in Party Mode can temporarily override Master Keypad volume level adjustments for their particular room preference. F1 and F2 favorite presets selected from the Master Keypad will be enabled in all rooms in Party Mode. Master Keypad will not change Bass, Treble, or Loudness adjustments for any other rooms other than the Master Keypad room. Every other keypad will still operate its respective bass, treble, balance and loudness adjustments for that room.

9. FRONT (AUX) A/V IN - Enabled or Disabled

Allows the system to select a seventh source option through the controller's front panel AUX connection for use with camcorders, game consoles, etc.

INSTALLER SECTION

Getting Started

Includes an installation overview, including tools needed and wiring instructions.

Component Guides

Reviews front and back panel features of the CAV6.6 controller and the UNO-S2 keypad.

Keypad Installation

Explains UNO-S2 keypad installation and wiring.

Making Connections

Details front and back panel connections of the controller and the keypad.

System Installation Overview

Outlines the programming planning process, and includes information forms to complete prior to programming.

Installation Menu

Explains the programming menus that set up controller, keypad, source, and zone operations.

Setup Menu Flow Charts

Presents the programming menus in a graphical flow chart format.

CAUTION

Do not connect the controller's main power feed until all other connections have been made and verified. Live connection or removal of the keypad wiring or other wiring when the system is powered can cause communication problems in the network. Double-check terminations during each phase of the installation to prevent accidental damage. Incorrect wiring is the number one cause for non-warranty product damage.

INSTALLER
GETTING STARTED

Unpacking the System Components

• Keep the original carton and packing materials for future shipment or storage.

• Check for any visible signs of damage. If you encounter any concealed damage, consult your Russound dealer before proceeding to install the unit.

• Retain the sales receipt as it establishes the duration of the limited warranty and provides information for insurance purposes.

CAV6.6-S2 System Components:

• 1 (one) CAV6.6 Controller/Amplifier

• 6 (six) UNO-S2 System Control Keypads

• 1 (one) UNO-LRC1 Learning/Preprogrammed Remote Control

• 6 (six) 845.1 Micro Emitters

Tools needed for installation:

- Drill with a 1/2" x 6" drill bit
- Keyhole saw
- Flat head screwdriver (medium size)
- Phillips Screwdriver (cordless recommended)
- 110 punchdown tool (included)
- Modular RJ-45 crimper and connectors
- Pair of diagonal cutters or wire strippers
- Stud finder
- Steel wire fish tape
- Cable staples
- Double-gang electrical work boxes

System Installation Considerations

There are several factors to consider before installing the Russound CAV6.6-S2 system:

• What are the intended listening zones, and what zones require audio and video distribution or audio only?

• Are A-BUS® sub-zones needed? A-BUS sub-zones are only available for zones 1 - 4. The A-KP2 amplified keypad can provide direct source selection for only the first four sources when in 'Multi' source mode.

• What system options and accessories might be required for features such as paging, local sources, etc.?

• From where in each zone will the user prefer to control the system? Where will the keypads be located? Where will the speakers be located?

• Where will the source equipment be located? The CAV6.6 must have proper ventilation above and below for air circulation and heat dissipation. A rack-mount location may require fans and vents.

Connection Tips

• It is recommended that the CAV6.6 and the source equipment be plugged into a dedicated 20-amp circuit with an isolated ground. A power line conditioner can reduce interference problems caused by noise found in some electrical systems.

• Disconnect all live power cords before making connections to the controller.

• Verify that all connections and polarity are correct.

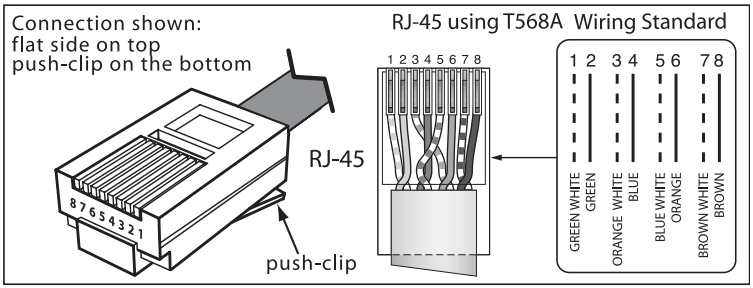
• Keep all power cords away from all signal cables to prevent humming from induced noise.

• Choose reliable signal cables/patch cords.

• Label all wires with room location at both ends of the wire.

RJ-45 Connections
The CAT-5 T568A wiring standard shown on the right is used for the RJ-45 terminations.

RJ-45 Connection Details



Keypad Wiring
For the UNO-S2 keypad, the following connections are used to terminate the CAT-5 wire to the 110 punchdown on the keypad:

CAT-5 WIRE COLOR	TYPE
Brown	+12V
Brown/White	+12V
Green	Ground
Green/White	Status In
Orange	Ground
Orange/White	IR Out
Blue	COM A
Blue/White	COM B

• To determine the amount of CAT 5 wire required for the system installation, first decide how many keypads will be used, then determine the distance between each intended keypad location to the intended CAV6.6 location. The maximum recommended wire run length is 250 feet for each UNO-S2 Keypad.

• Make sure that the entire wire path between keypads and CAV6.6 is clear and not obstructed by a floor ceiling joist, or masonry wall which can't be drilled through.

• Confirm ahead of time that you can drill an outlet hole easily and in an unobtrusive spot to connect wires with the CAV6.6.

• Label wires with keypad and room location. This simplifies CAV6.6 hook-up once the keypads and speakers are installed.

• If you plan to use an additional IR receiver with an UNO-S2 keypad, first determine the location of the IR receiver, then measure the distance from the intended location to the UNO-S2 keypad location. Incorporating optional IR receivers will require additional wire. Consult the selected IR receiver model's manual for the specific wire needs.

Speaker Wiring

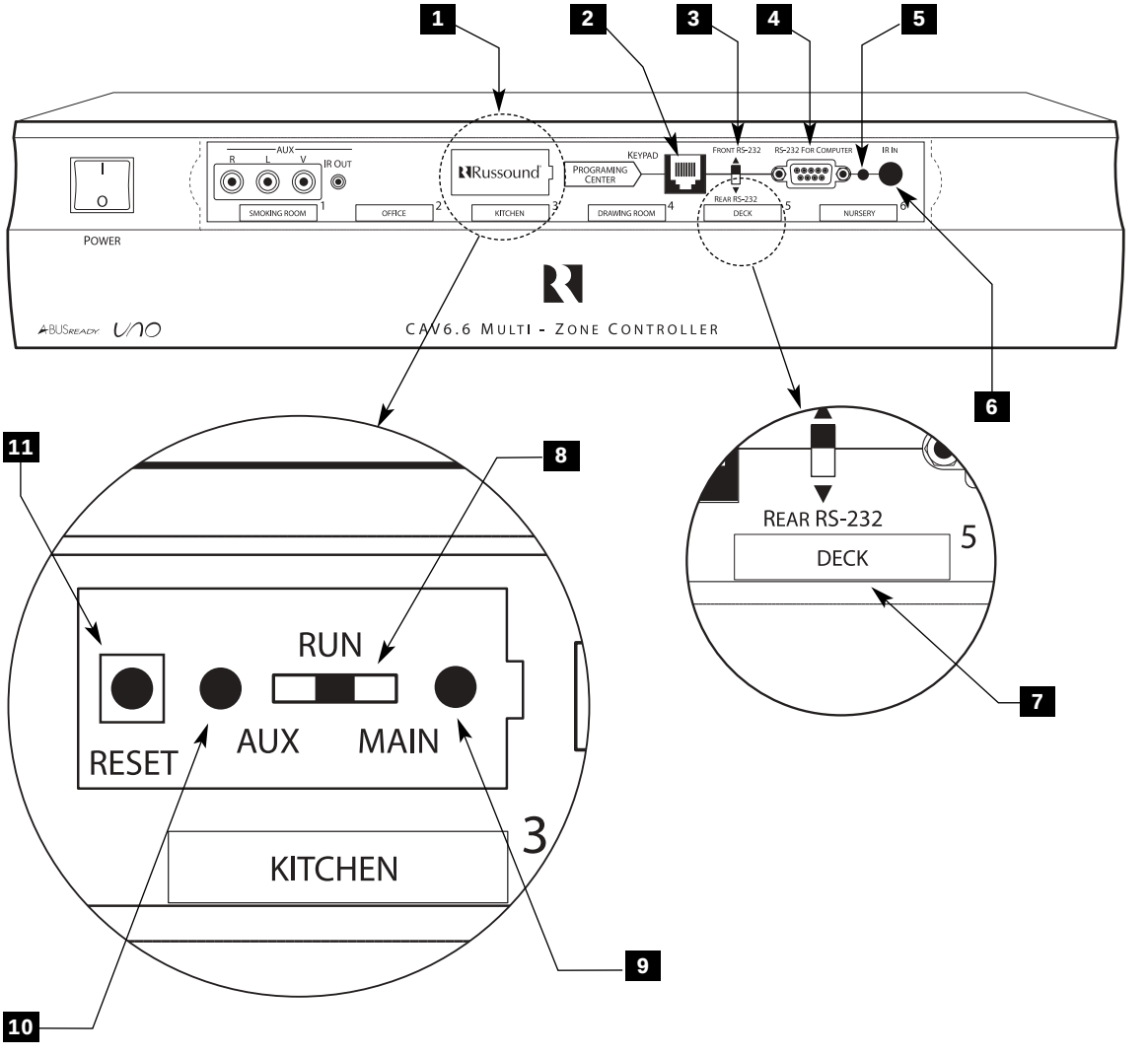
• Standard 16-gauge 4-conductor stranded speaker wire can be run up to to 125 feet; 14-gauge wire can be run up to 250 feet.

• When running wire, pay particular attention to the following areas:

• Avoid locations concealing pipes, heating ducts and AC wiring in the general vicinity.

• Avoid running wires close to house electrical wiring for any distance. If you have to run them parallel, make sure to space the wires at least two feet from the AC line.

CAV6.6 Controller-Front Panel



CAV6.6 Controller-Front Panel

1 PROGRAM SELECTOR COVER - Protects the Program Selector Switch

2 KEYPAD PROGRAMMING PORT - Accepts an RJ-45 terminated UNO keypad to program certain features of the CAV6.6

3 FRONT/REAR RS-232 SWITCH - Selects front or rear RS-232 connection for optional PC connection during programming

4 RS-232 INTERFACE - The RS-232 Interface on the front and on the rear, allows the zones to be controlled by PC or other devices that have an RS-232 Interface. The RS-232 Interface also allows for software updates

5 IR CONFIRMATION LED - IR Learning and preprogrammed IR output confirmation LED.

6 IR RECEIVER - Receives IR signal when learning IR codes into the CAV6.6

7 ZONE LABEL - Selectable backlit labels identify active zones

8 OS PROGRAM SELECTOR SWITCH - Selects between Main and Aux Micro-controller IC when updating the CAV6.6 OS software.

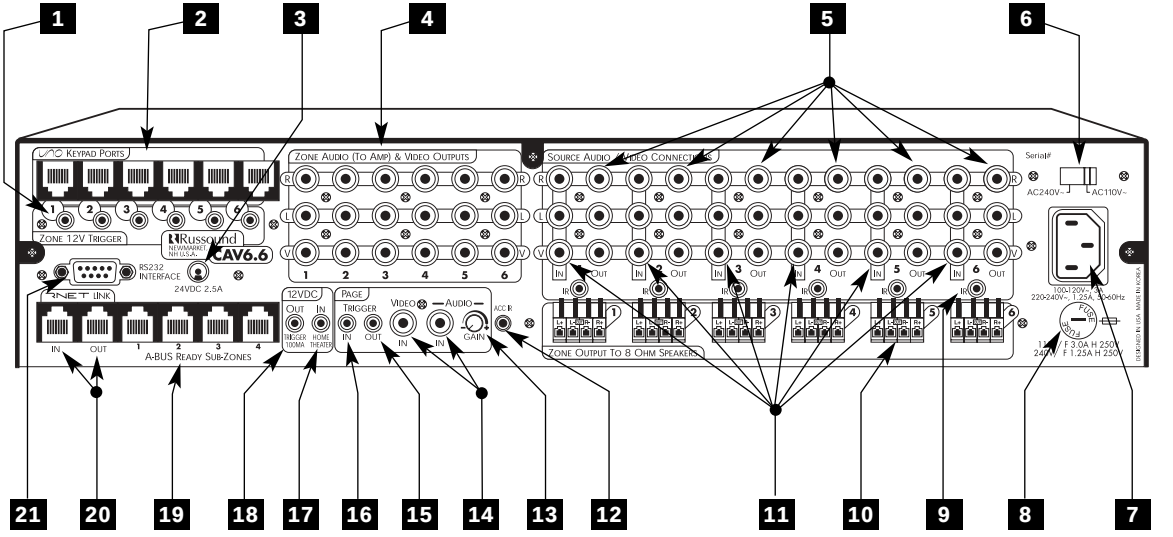
9 MAIN LED - Illluminates when the Main Micro-Controller IC is selected to be programmed

10 AUX LED - Illuminates when the AUX IC is selected to be programmed

11 RESET BUTTON - Resets the CAV6.6 when OS updates are completed

INSTALLER
COMPONENT GUIDE

CAV6.6 Controller-Rear Panel



1 ZONE 12VDC TRIGGER OUT - 12VDC 50ma is available whenever the corresponding zone is turned on

2 UNO KEYPAD PORTS - One UNO Keypad Port for each of the six CAV6.6 Zones

3 24VDC 2.5A INPUT - Provides power to the A-BUS READY SUB-ZONES when used with a 24VDC 2.5A power supply (e.g., Russound A-PS)

4 ZONE AUDIO/VIDEO OUTPUTS - Variable line audio with fixed video, used to connect to an external amplifier and television monitor

5 AUDIO/VIDEO SOURCE LOOP OUTPUTS - Six sets of buffered Audio/Video Line Level Loop Output connections

6 AC 240V-AC 110V Switch - Switches A/C input Voltage between 110VAC and 240VAC

7 AC 120/240 INPUT - Grounded 3-terminal plug detachable power cord connection for the CAV6.6

8 FUSE HOLDER - Holds a replaceable fuse for A/C input connection
110VAC operation-F 3A H 250V, 240VAC operation-F 1.25A H 250V

9 SOURCE IR OUTPUTS - Six routed source-specific IR Output jacks allow for IR control of source equipment

CAV6.6 Controller-Rear Panel

10 SPEAKER OUTPUTS - Connect 8 Ohm speakers for each zone by using detachable color-coded modular snap connectors

11 AUDIO/VIDEO INPUTS - Six sets of Audio/Video Line Level input connections for CAV6.6 source components

12 ACC IR OUTPUT - ACC IR Output jack will pass all IR signals from all keypads

13 PAGE LINE LEVEL AUDIO GAIN CONTROL - Adjusts the Line Level Audio Page Input

14 PAGE A/V INPUTS - RCA jacks allow for one Audio/Video Page Input. Signal sensing is used on Page Audio In to initiate a page

15 PAGE 12VDC TRIGGER OUT - Page Trigger Out supplies 12VDC whenever 12VDC is applied to the Page 12VDC Trigger In

16 PAGE 12VDC TRIGGER IN - Applying 12VDC to the Page 12VDC Trigger In jack will activate Audio/Video Page for assigned CAV6.6 Zones and initiate a page (overrides signal sense)

17 HOME THEATER 12VDC TRIGGER IN - 12VDC input jack notifies the CAV6.6 that additional A/V components are active, e.g., home theater equipment

18 12VDC TRIGGER OUT - 12VDC 50ma Trigger Out turns on when any zone is on

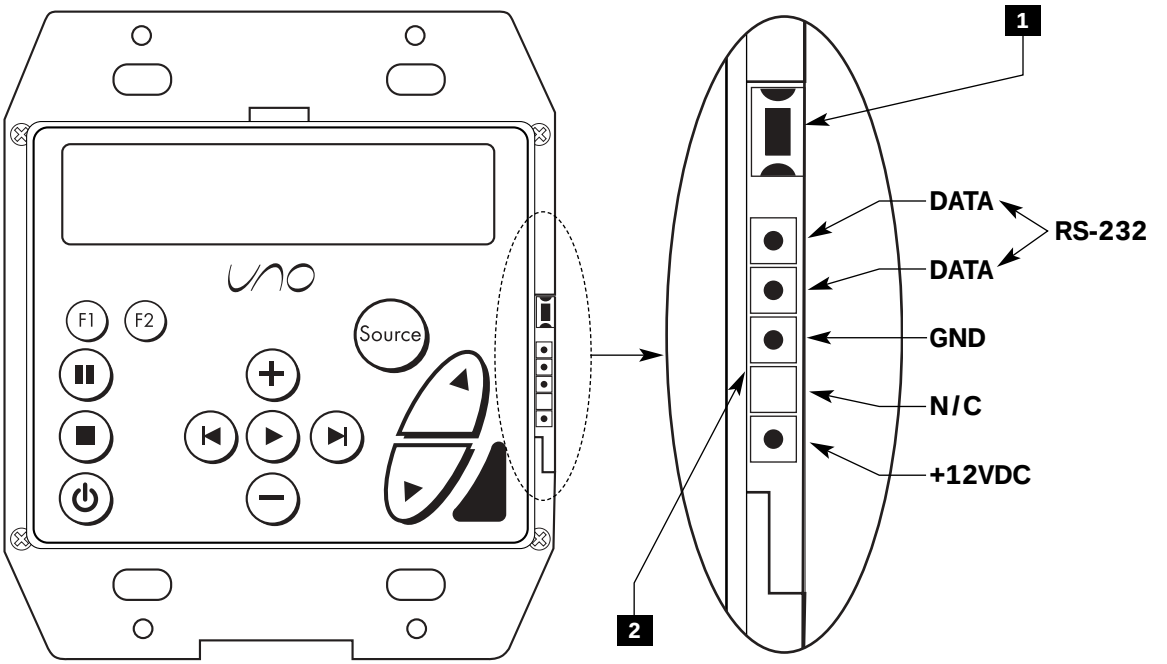
19 A-BUS READY SUB-ZONES - A-BUS Amplified Control Modules and Hubs can be added for additional sub-zones of audio (Zones 1 to 4 only)

20 R-NET LINK IN AND LINK OUT - Links multiple CAV6.6's, also links future Russound components that are R-NET compatible

21 RS-232 INTERFACE - The RS-232 Interface on the rear and on the front, allows the zones to be controlled by PC or other devices that have an RS-232 Interface. The RS-232 Interface also allows for software updates and programming

INSTALLER
COMPONENT GUIDE

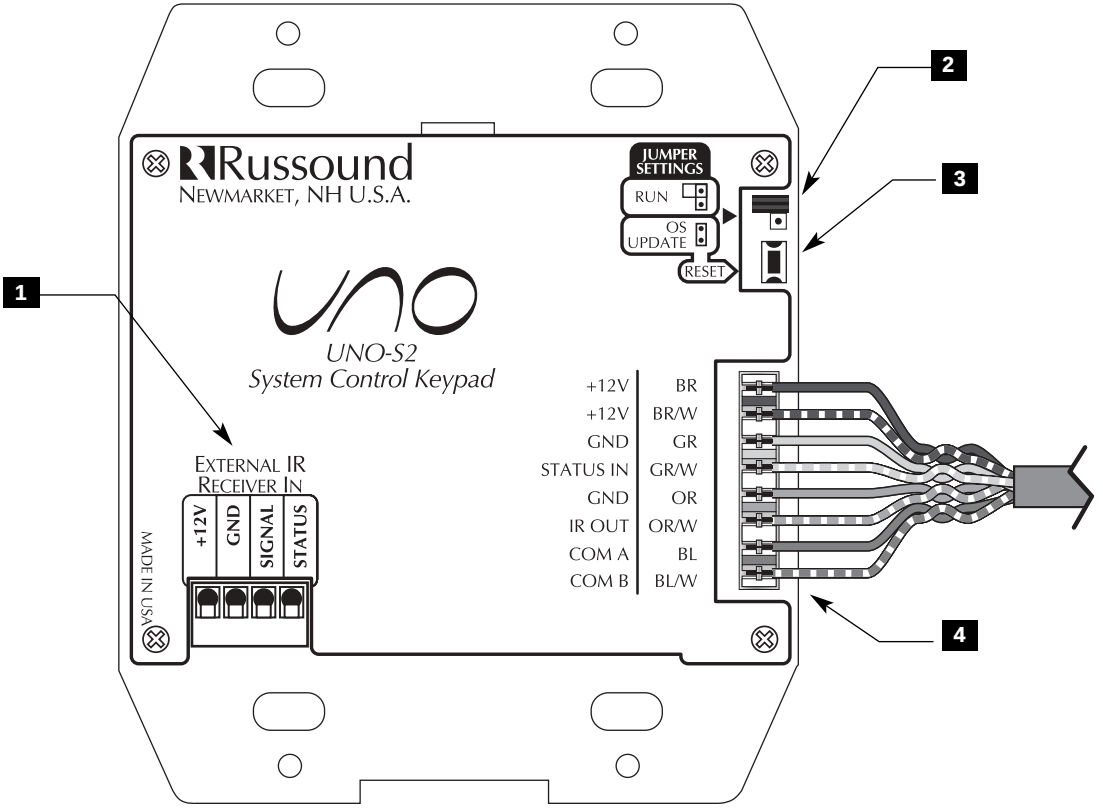
UNO-S2 Keypad-Front Panel



1 SETUP BUTTON - Activates Installer Setup Mode for the UNO-S2 keypad

2 OS UPDATE PORT - Port used for UNO keypad OS software updates

UNO-S2 Keypad-Rear Panel



1 EXTERNAL IR RECEIVER IN CONNECTOR - Connection for an external IR Receiver.

2 OS UPDATE JUMPER - Selects “Run” or “OS Update” mode.

3 RESET BUTTON - Reset whenever changing from RUN to OS update

4 110 PUNCHDOWN CONNECTOR - Termination for CAT-5 connection between the UNO-S2 Keypad and the CAV6.6 controller.

INSTALLER
UNO-S2 KEYPAD-INSTALLATION

Keypad Location

The best infrared remote performance is achieved with the keypad away from any direct sunlight, plasma TV, and low voltage lighting controls. Also consider convenience when choosing a location.

Choose a place that is easily seen from the position where a person is most likely to be located.

Check whether or not you can route the wire to the location you have chosen.

Keypad Installation

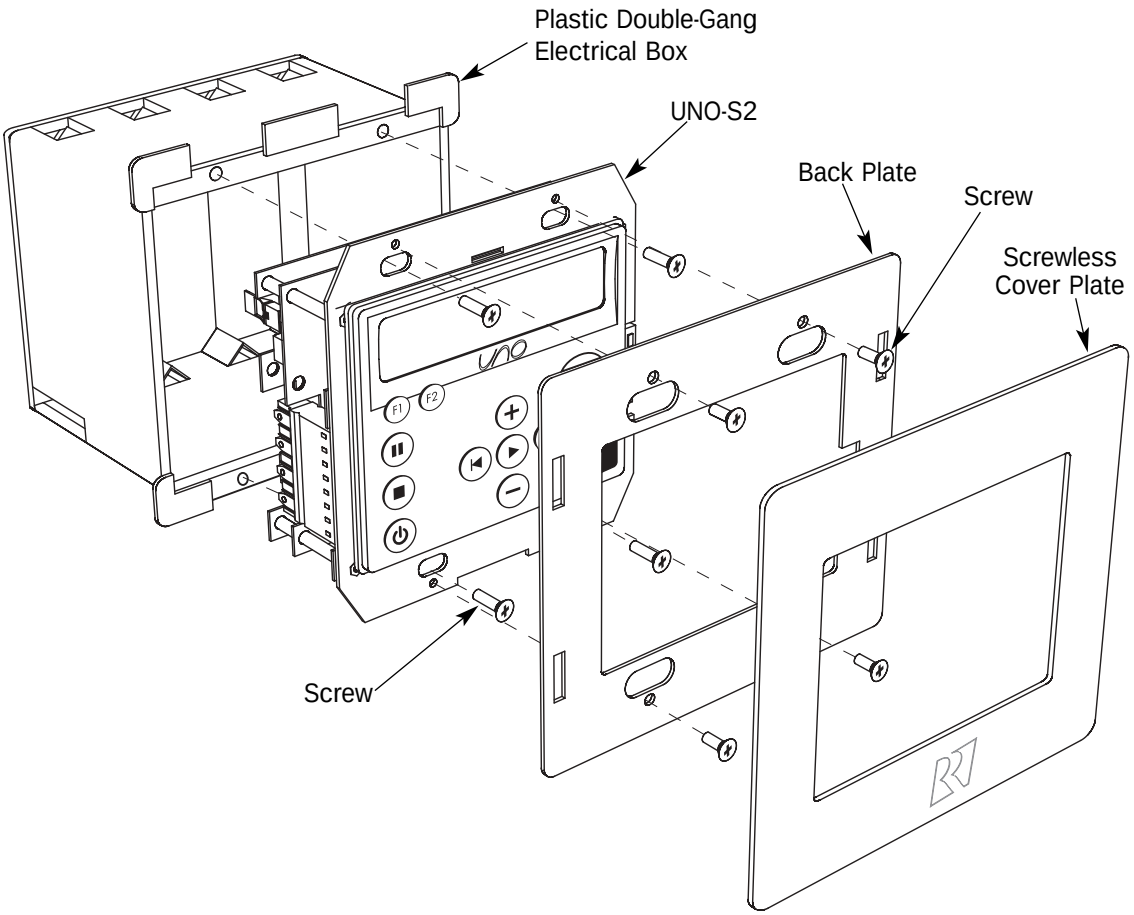
To install a double-gang keypad, you will need to use a UL/CSA approved plastic double-gang electrical box.

Route CAT-5 wire to the junction box from the CAV6.6.

Use the supplied 110 punchdown tool to connect each wire to its corresponding color labeled on the punchdown terminal.

Ensure jumper settings on keypads are in the run positions.

Mount the keypad in the electrical box and attach the cover plate. Repeat the steps until all keypads are installed.



UNO-S2 Keypad Connections

CAT-5 Connection

The UNO-S2 Keypad uses a 110-punchdown terminal to provide a simple installation and strong connection for CAT-5 cable's eight conductors. Punchdown terminals require the use of a punchdown tool which has been provided with the keypad kit. Attach the CAT-5 cable to the 110-punchdown terminal on the UNO-S2 Keypad as shown, matching the conductor colors to the connection color guide. The keypad will not operate properly if the terminations deviate from the required connection order.

⚠ Caution:

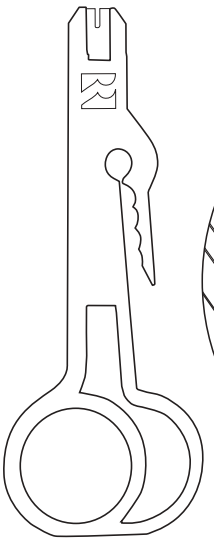
Take care when using an impact 110 punchdown tool, as this may overspread the contact points. Use of the impact tool may propel stray bits of wire and jacket into the keypad's chassis and possibly cause a short in the circuitry. Gently shake or blow air through the keypad chassis to remove stray wire before the keypad is installed into the junction box.

OS Update Port

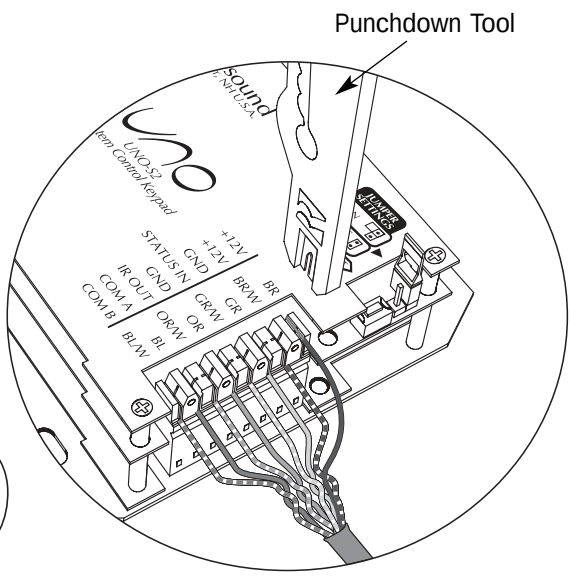
The OS Update Port is is used to update the UNO-S2 Keypad operating system software in the future. When an update is released, it will be available online through the Document Center at *www.russound.com.* Look for the Technical Documents under Multi-source/Multi-room products. The programming cable is available from Russound, Part #2500-120633.

Jumper Setting

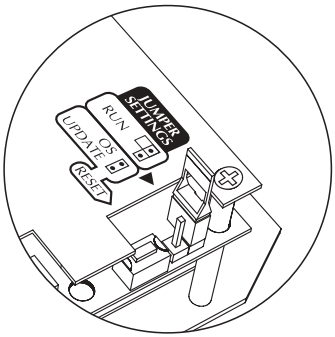
The jumper settings on the back of the UNO-S2 Keypad can be set for "Run" and "OS Update." The jumper setting must be in the "Run" position before the keypad is mounted into the junction box, and must remain set in "Run" to operate the keypad. The jumper will be set to "OS Update" only while updating the keypad's operating systems.



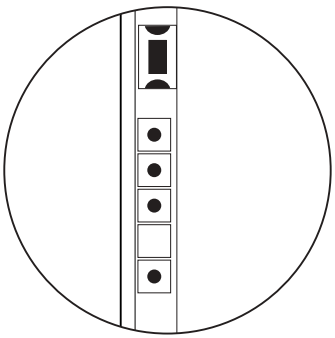
Punchdown Tool



CAT-5 Connections (back of keypad)



Jumper Setting (back of keypad)

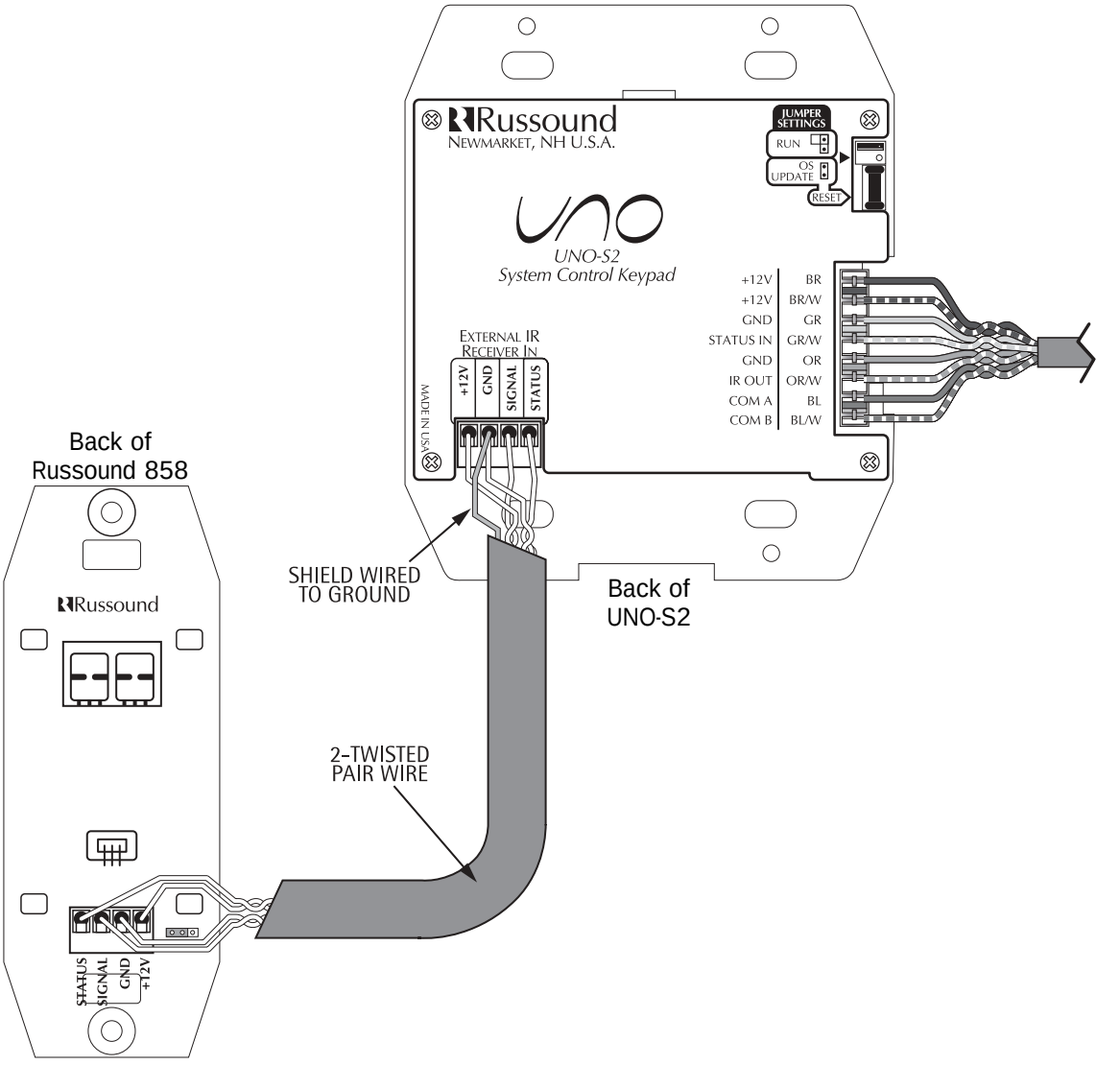


OS Update Port (front of keypad)

INSTALLER
UNO-S2 KEYPAD-INSTALLATION

IR Receiver Connection

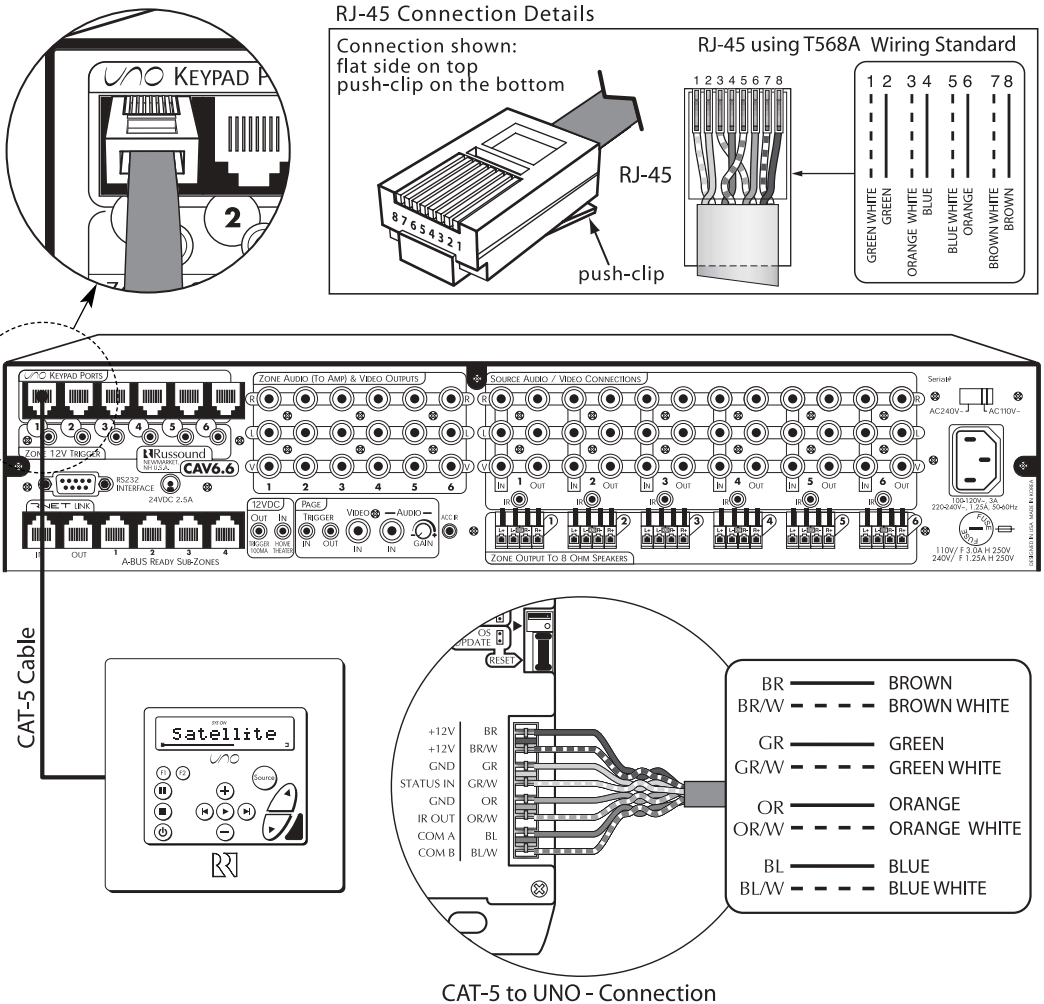
The UNO-S2 keypad has an External IR Receiver In terminal for connecting an external IR receiver such as the Russound 858, SaphIR Eye, or SaphIR Phantom. Use 2 twisted pair wire with one pair connecting GND (GROUND) and IR (SIGNAL) and the other pair connecting ST (STATUS) and V+ (+12VDC). If the wire has a shield, connect it to ground at the UNO-S2 only.



UNO System Keypad Port Connection

The UNO System Keypad Ports are located on the back of the CAV6.6 in the top left corner. Connections made at the UNO Keypad Ports are made using CAT-5 T568A RJ-45 wire configuration. CAT-5 is color-coded for ease of installation. For a clean installation when wiring from an UNO System Keypad Port use an RJ-45 CAT-5 patch cable to connect from the keypad port to an RJ-45 Wall Plate (optional). Using the same CAT-5 T568A RJ-45 wiring configuration, use CAT-5 from the RJ-45 Wall Plate to the keypad. If using more than one keypad on a zone, connect a SA-ZX3 UNO System Keypad Splitter (optional) directly to the UNO System Keypad Port instead of going through the wall plate. Always use the CAT-5 T568A RJ-45 wire configuration when wiring any of the UNO System Keypad Ports.

(See Sample System Configuration 3, page 76)

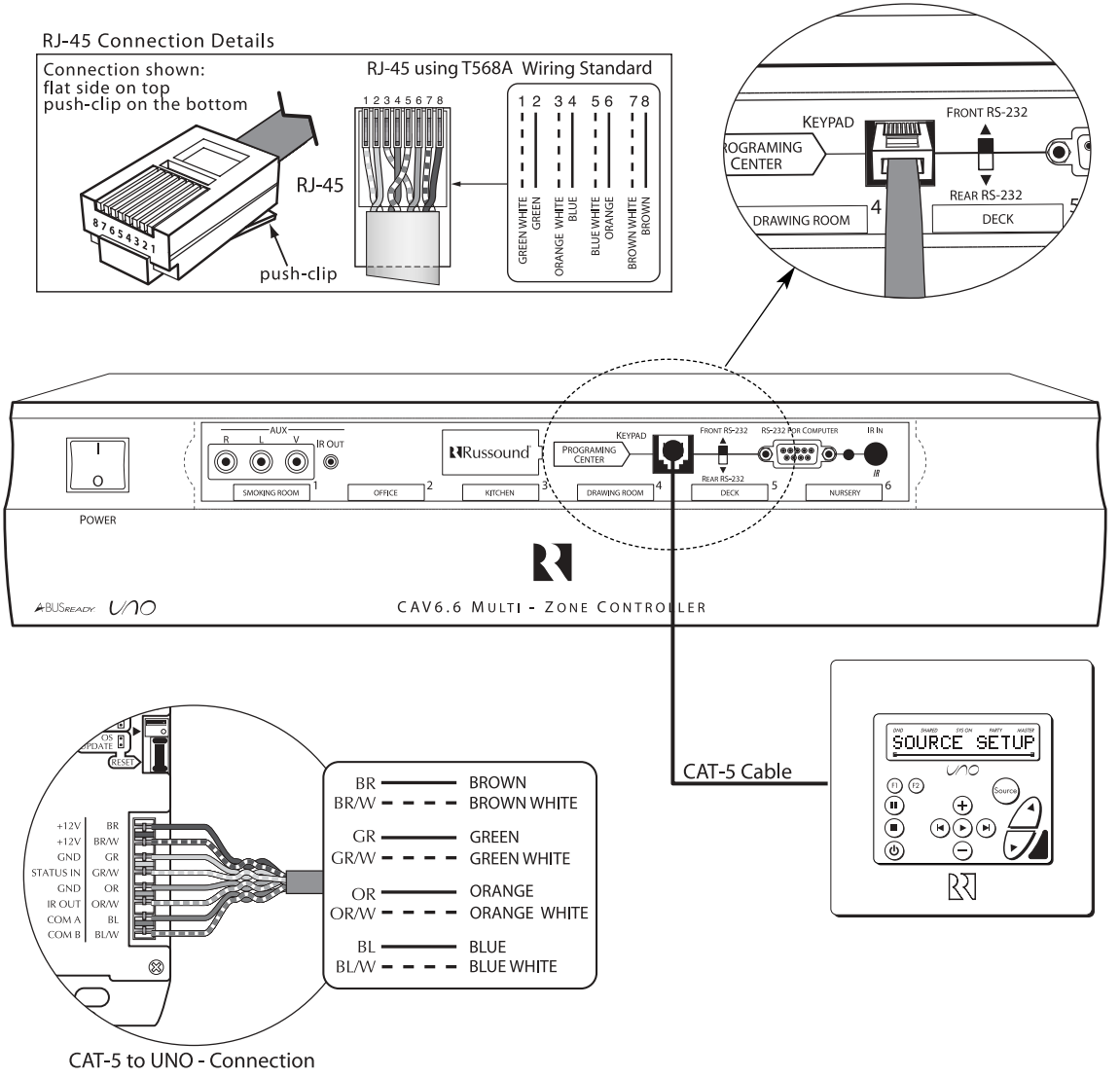


CAT-5 to UNO - Connection

INSTALLER
MAKING CONNECTIONS

Programming Center Keypad Port Connection

The CAV6.6 can be programmed via keypad connection using CAT-5 and the T568A RJ-45 wire configuration. An UNO-S2 Keypad can be attached to the controller at the Programming Center Keypad Port Connection.



Source Audio/Video Input Connections

The CAV6.6 supports up to six audio/video sources. The Source Inputs are located at the back panel. Connect each source output using quality RCA signal cables. Connect the Video, and the Left and Right Audio outputs from each source to the corresponding inputs on the CAV6.6 controller. Label each cable with the name of the selected source and the Source Audio/Video input number located on the CAV6.6.

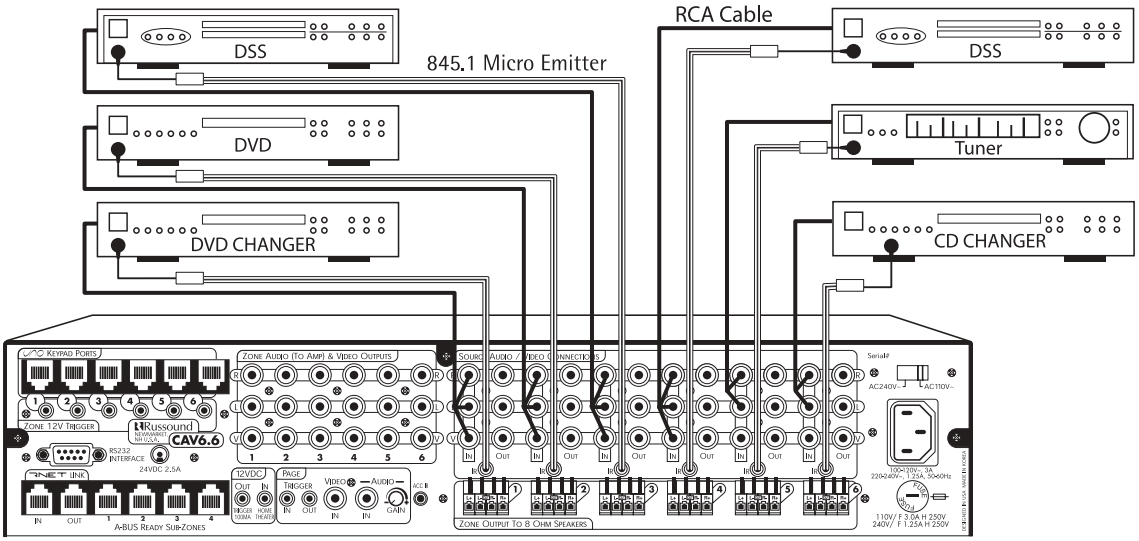
Source IR Connections

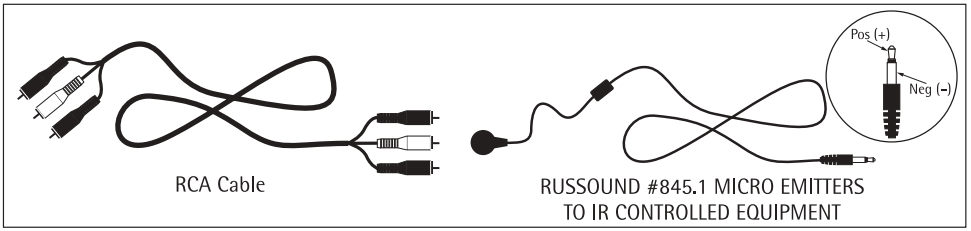
Each source component has a designated IR port on the back of the CAV6.6. This IR port is directly below the Source Audio/Video Input/Output Connections.

1. Using an IR emitter (the Russound 845.1 is recommended) attach the end of the emitter with the 1/8" plug to the IR emitter port below the source input.

2. Remove the adhesive back at the other end of the emitter and attach the emitter over the source component's IR window.

3. In order to control this source component with IR, the source must be selected at the key-pad receiving the command.

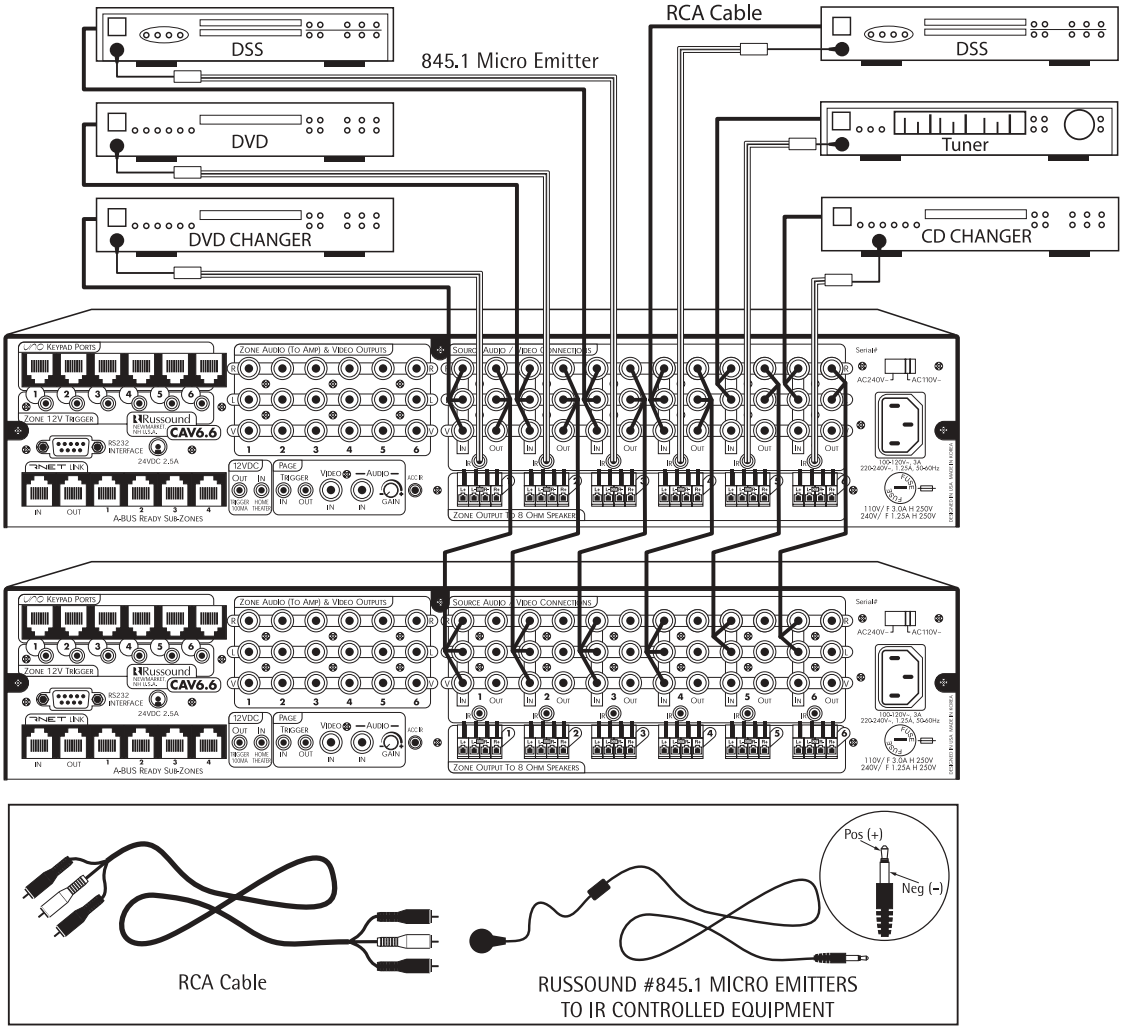




Source Audio/Video Loop Output Connections

The CAV6.6 has six buffered, fixed-level audio/video source loop outputs. This source loop configuration allows the CAV6.6 to pass source signals to another component, such as a home theater receiver or to another CAV6.6 for sharing sources in a multiple controller system.

The Source Loop Outputs are located directly to the right of the Source Audio/Video Inputs. Use quality RCA signal cables to ensure quality transference of Audio/Video signals.



Speaker Connections

The speakers are connected to the CAV6.6 using modular snap speaker connectors. Each of these color coded connectors is designated for the speaker set of a particular amplified zone. To avoid confusion, connect one zone speaker set at a time starting with Zone 1, taking care to keep zone and speaker wire identities straight. Note: An 8 Ohm minimum speaker is required for each amplified output.

1. Pull the speaker wire conductors apart so they're separated for the first two inches from their ends.

2. Using a wire stripper, remove 1/4 inch of insulation from each conductor. Twist the strands in each conductor into tight spirals.

3. Remove the modular four-color connector for Zone 1. The color code is as follows:

WHITE -- L+ (left channel positive)

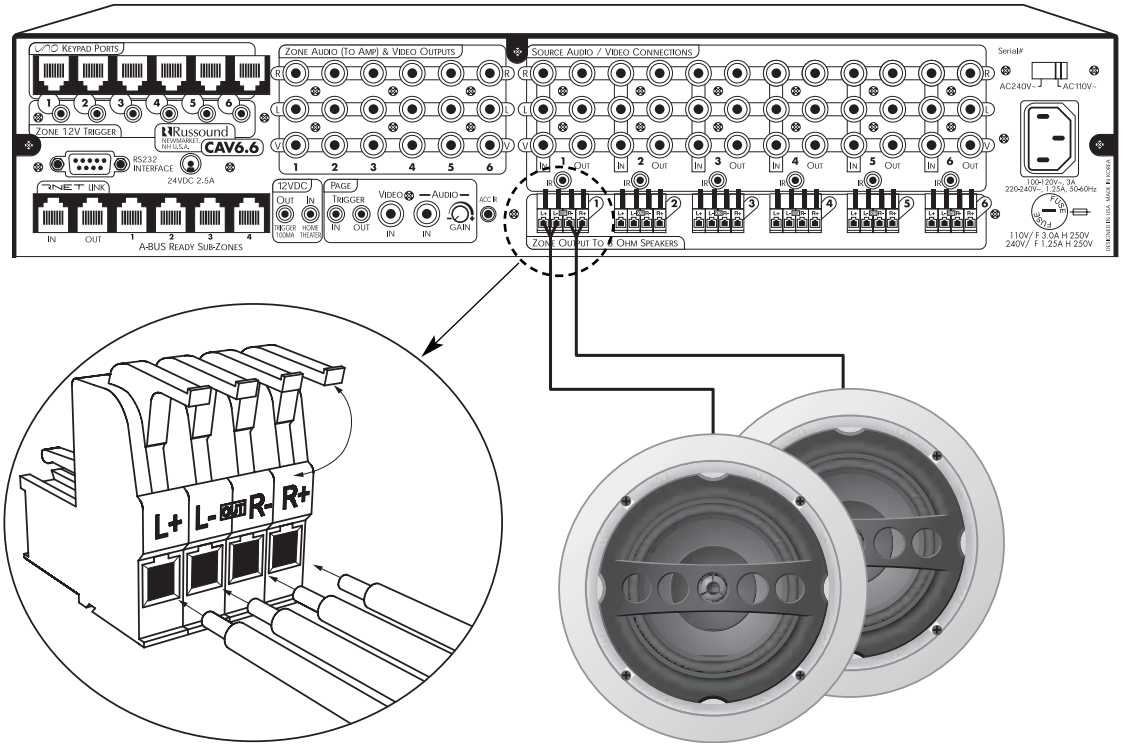
GREEN -- L- (left channel negative)

BLACK -- R- (right channel negative)

RED -- R+ (right channel positive)

Lift the black lever for each connection until it locks open and insert the proper speaker wire, matching channel and polarity for all four wires. Snap the lever down. Insert the modular connector into its designated output on the back of the CAV6.6.

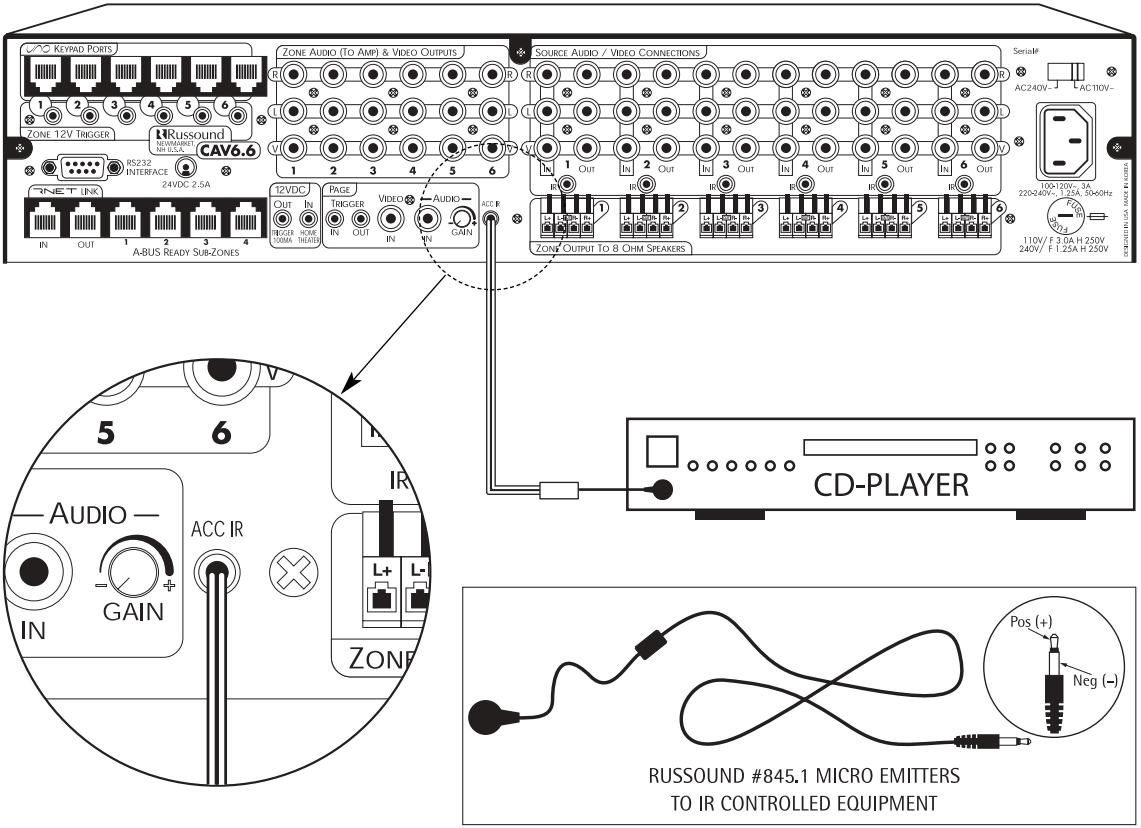
4. Complete the same steps for the remaining zones. Label each set of speaker wires with the zone and location.



INSTALLER
MAKING CONNECTIONS

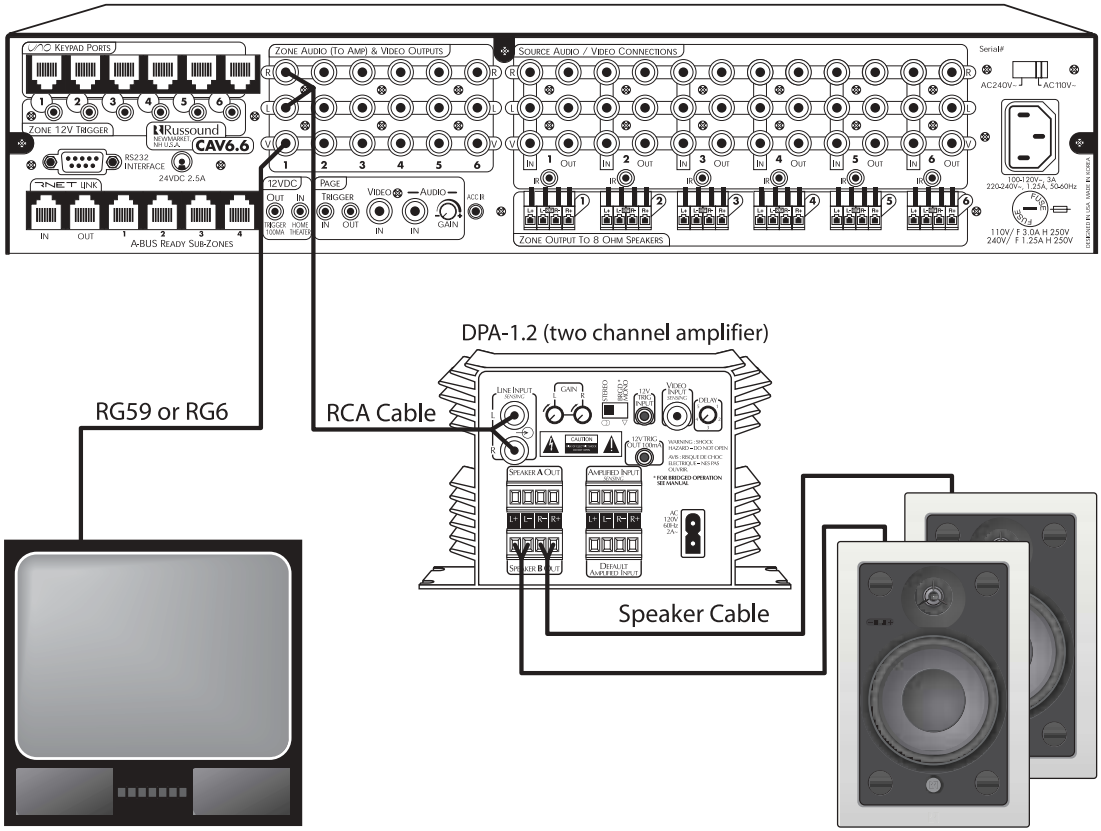
ACC IR Connection

The Accessory IR jack on the rear of the CAV6.6 allows control of any source equipment without that source being selected on the keypad. The connection for the ACC IR jack is made using an IR emitter with the 1/8'' plug. The Russound 845.1 single IR emitter is recommended, or use an IR connecting block such as the Russound 857 which allows multiple units to be controlled through the ACC IR Port.



Zone Audio (to Amp) and Video Outputs

The CAV6.6 has six Zone Audio/Video outputs. The Variable Audio outputs can be used if additional amplification is desired (e.g., Russound DPA-1.2 two-channel amplifier). The Zone Audio/Video Outputs are located slightly to the left of center on the rear of the CAV6.6.
Use quality RCA signal cables to ensure a constant quality Audio signal. Video for the zone will be routed via the Video connection.
Use RG59 Coax Cable or an RG6 Cable with 95% copper braided shield and solid copper core up to 150 feet long for video connections to monitors.

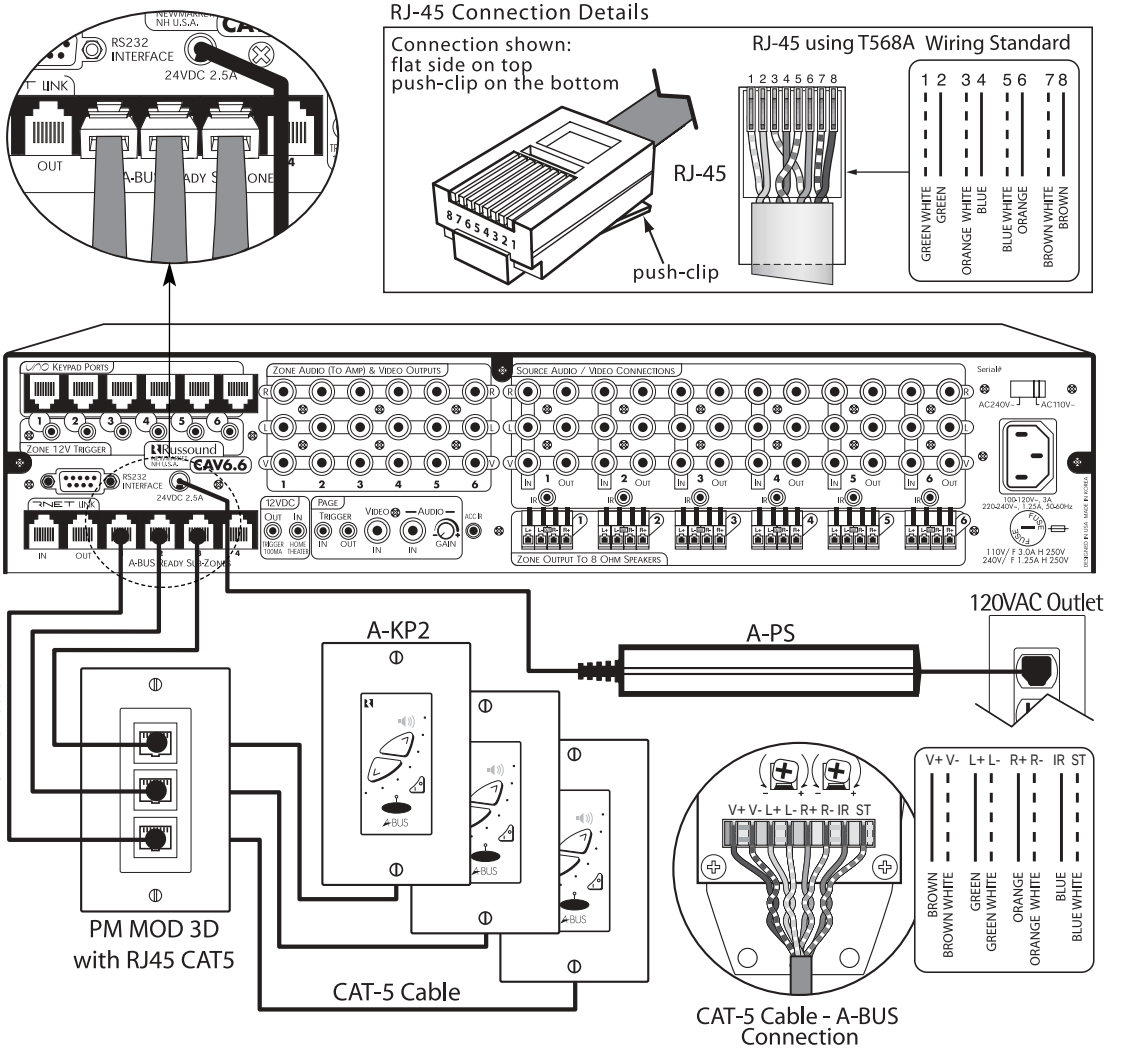


A-BUS Ready Sub-Zone Connection

A-BUS products can easily expand the CAV6.6 audio system by adding A-BUS Ready Sub-zones to the first four CAV6.6 zones. The A-BUS Ready Sub-zones are located on the back of the CAV6.6 at the bottom left corner. The A-BUS Ready Sub-zones are powered by a 24VDC power supply such as the A-PS.

Use an RJ-45 CAT-5 T568A configuration patch cable to connect the A-BUS Ready Sub-zone port to an RJ-45 wall plate (optional) for a clean installation. Using the same T568A RJ-45 wiring configuration, attach CAT-5 from the RJ-45 wall plate to an A-BUS hub or amplified control module such as the A-KP2 keypad.

If using an A-BUS hub with the A-BUS Ready Sub-zone, the hub should be located near the CAV6.6 and wired directly instead of first going through the wall plate.



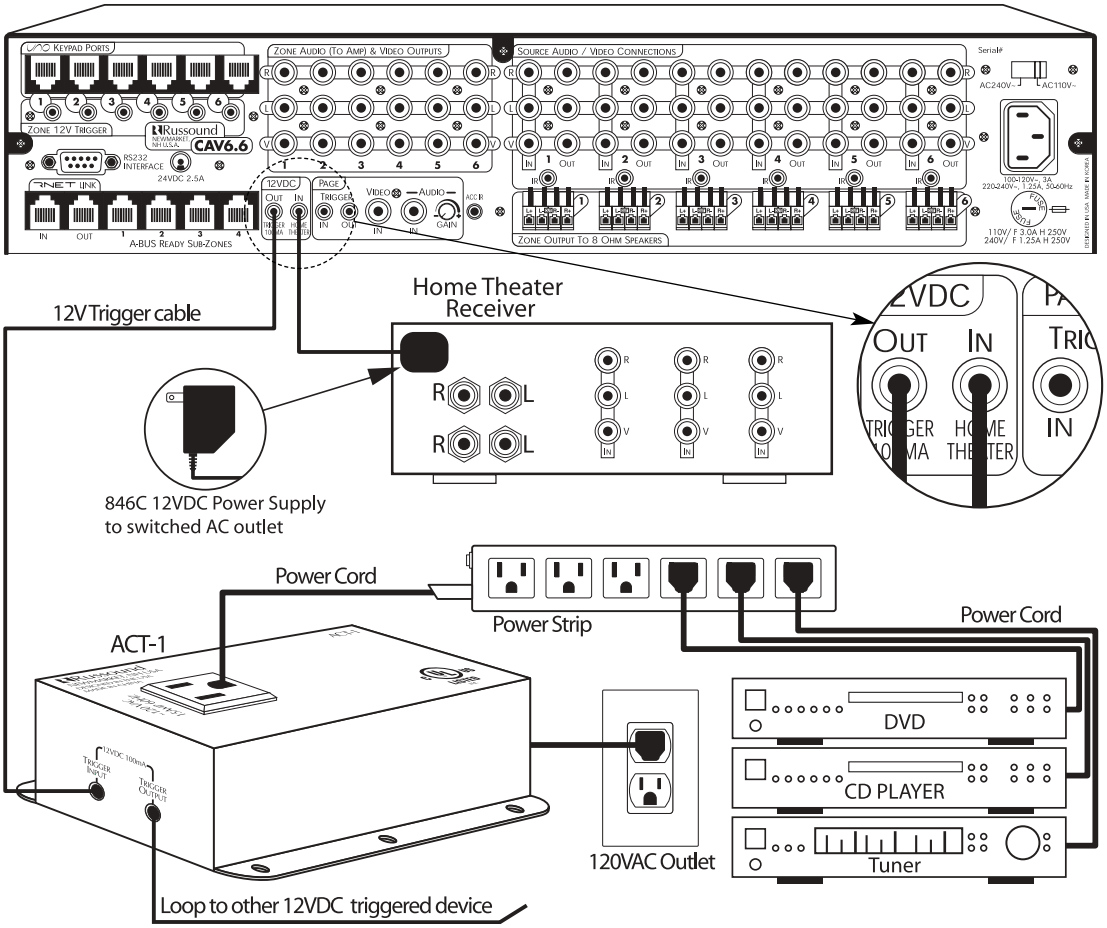
12VDC Trigger In/Out

12VDC Home Theater Trigger In

This 12VDC Trigger input is used to control Power Management of the audio/video sources possibly being shared with a home theater system. When the source equipment is off and 12VDC is provided to the trigger, the sources will be turned on until it is removed. When the last zone on the CAV6.6 is turned off, 12VDC presence to the trigger input will prevent the sources from being turned off. The connections for the trigger are made using a two-conductor cable with 1/8" male mini-plug. The tip is positive (+) and the sleeve is negative (-).

12VDC 50mA Trigger Out

The 12VDC 50mA trigger out can be used to engage any 12VDC trigger device or component such as the Russound ACT-1 triggered outlet. The connections for the trigger out are made using a two-conductor cable with 1/8" male mini-plug jacks at each end. The tip is positive (+) and sleeve is negative (-).



12VDC Trigger In/Out

12VDC Page Trigger In

When 12VDC is applied to the Page Trigger In, the system will page audio that is connected to the Page Audio Input and interrupt the video outputs with the page video signal. The Page Trigger In is located in the Page connection area of the CAV6.6 Controller. The connections for the trigger are made using a two-conductor cable with 1/8" male mini-plug jacks. The tip is positive (+) and sleeve is negative (-). This allows for the connection of an external paging or muting device such as the Russound DIM-1 Doorbell Interface Module. The CAV6.6 can be programmed to mute audio and video for one or all zones as preferred when the 12VDC is applied.

12VDC Page Trigger Out

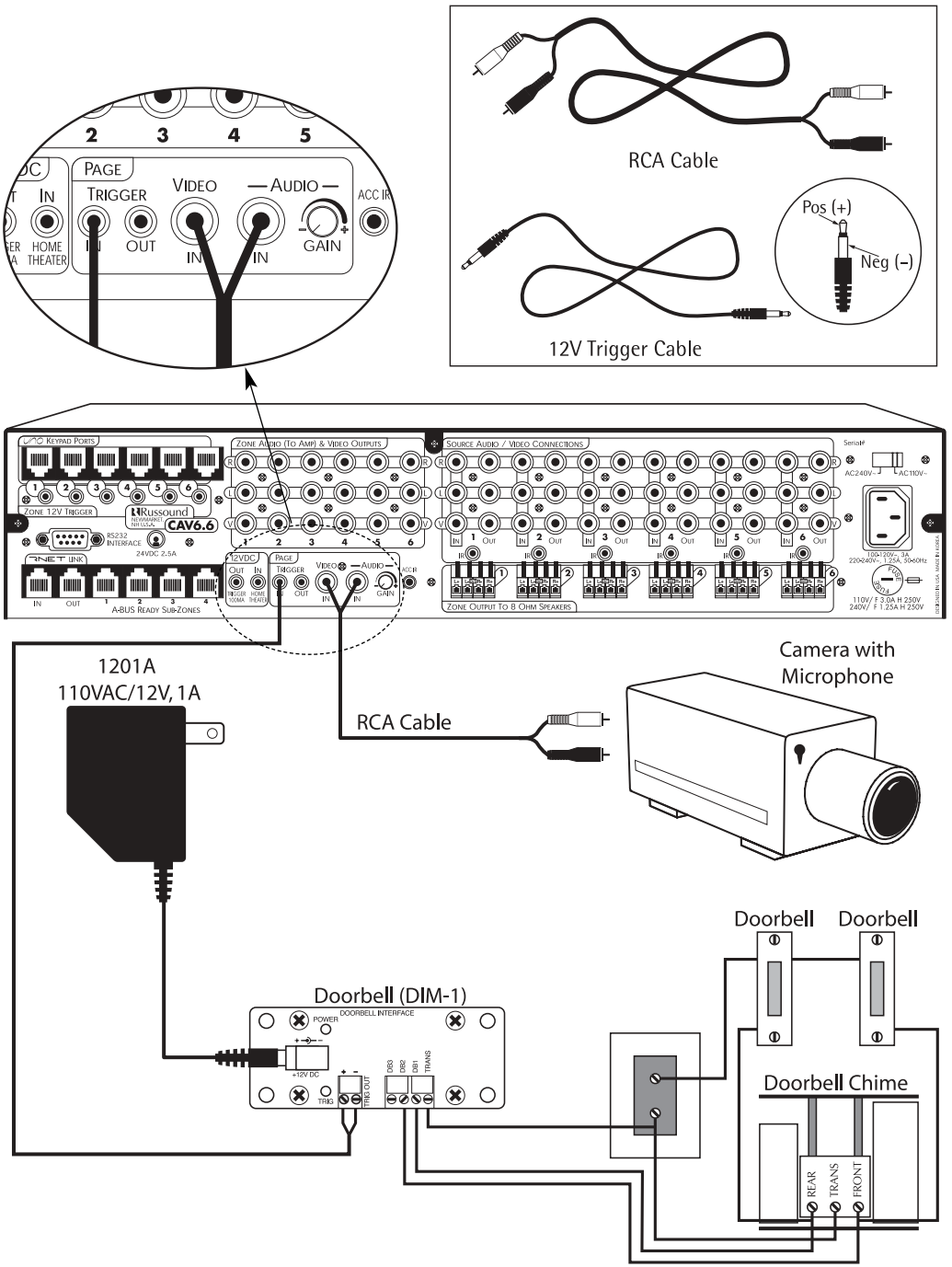
Page Trigger Out 12VDC output is available under several programmable situations, such as for triggering an external amplifier, muting device or other paging component dependent on the Page Trigger In 12VDC. The connections for the output are made using a two-conductor cable with 1/8" male mini-plug jacks at each end. The tip is positive (+) and sleeve is negative (-). The default setting for the Page Trigger Out provides 12VDC whenever 12VDC is applied to the Page Trigger In.

In some cases noise or interference may be generated by external devices that are connected to the 12 volt trigger outputs of the CAV. It may be necessary to use a ferrite bead to reduce this interference. Two to three turns of the connecting cable through the bead may be needed.

Page Audio/Video In

The Page Audio/Video Inputs accept line level audio/video signals. The paging inputs interface with the page output of a telephone, camera, or other peripheral device. Connect the audio/video signals using quality RCA cables.

12VDC Trigger In/Out

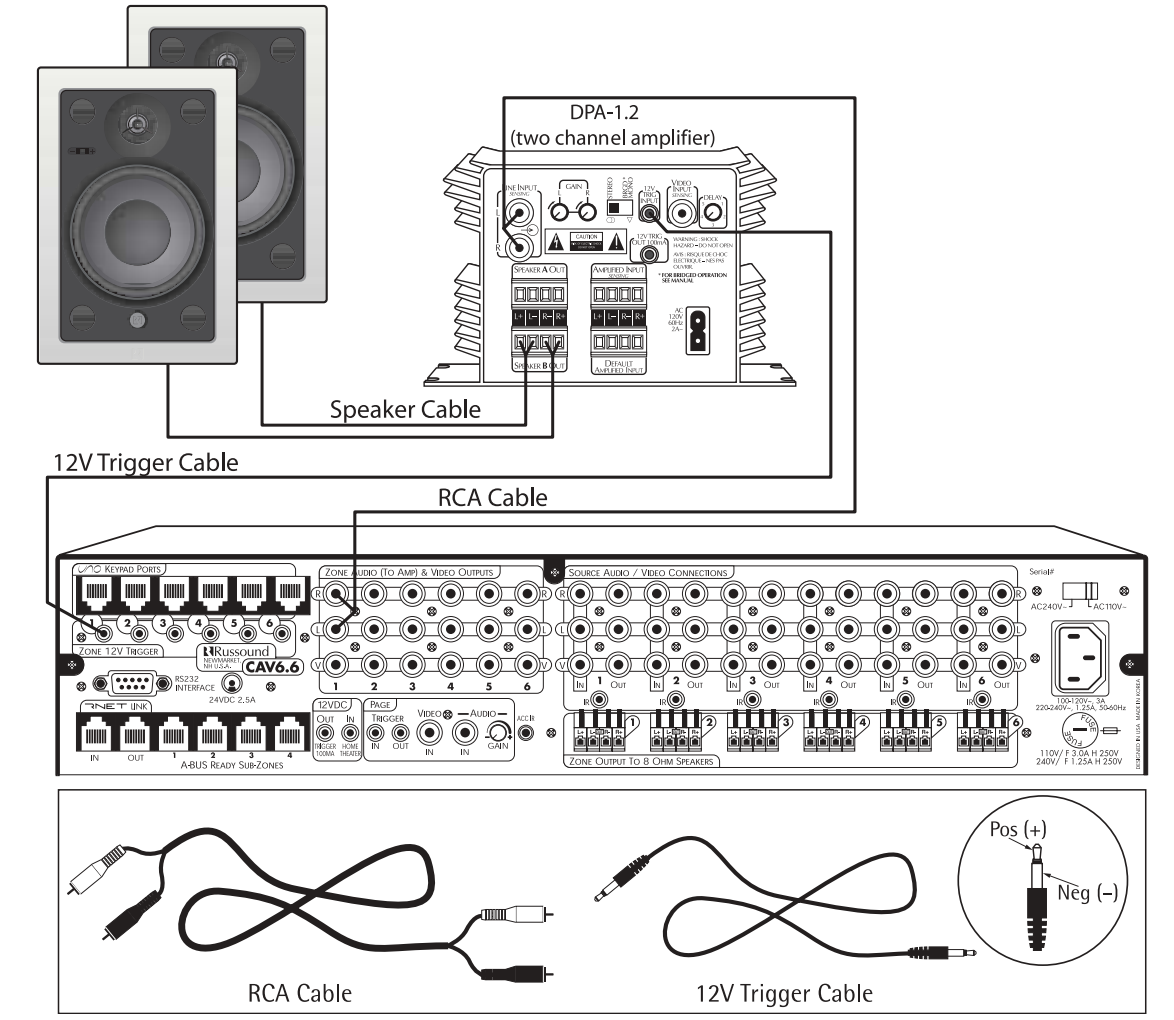


INSTALLER
MAKING CONNECTIONS

12VDC Trigger In/Out

Zone 12VDC Trigger Outputs

Zone 12VDC Triggers are located directly under the UNO Keypad Ports. The 12VDC Trigger is engaged when the corresponding zone is turned on and disengaged when the zone is turned off. The trigger can be used to engage any 12VDC trigger device or component such as the Russound DPA-1.2 amplifier. The connections for the trigger outputs are made using a two-conductor cable with 1/8" male mini-plug jacks at each end. The tip is positive (+) and sleeve is negative (-).

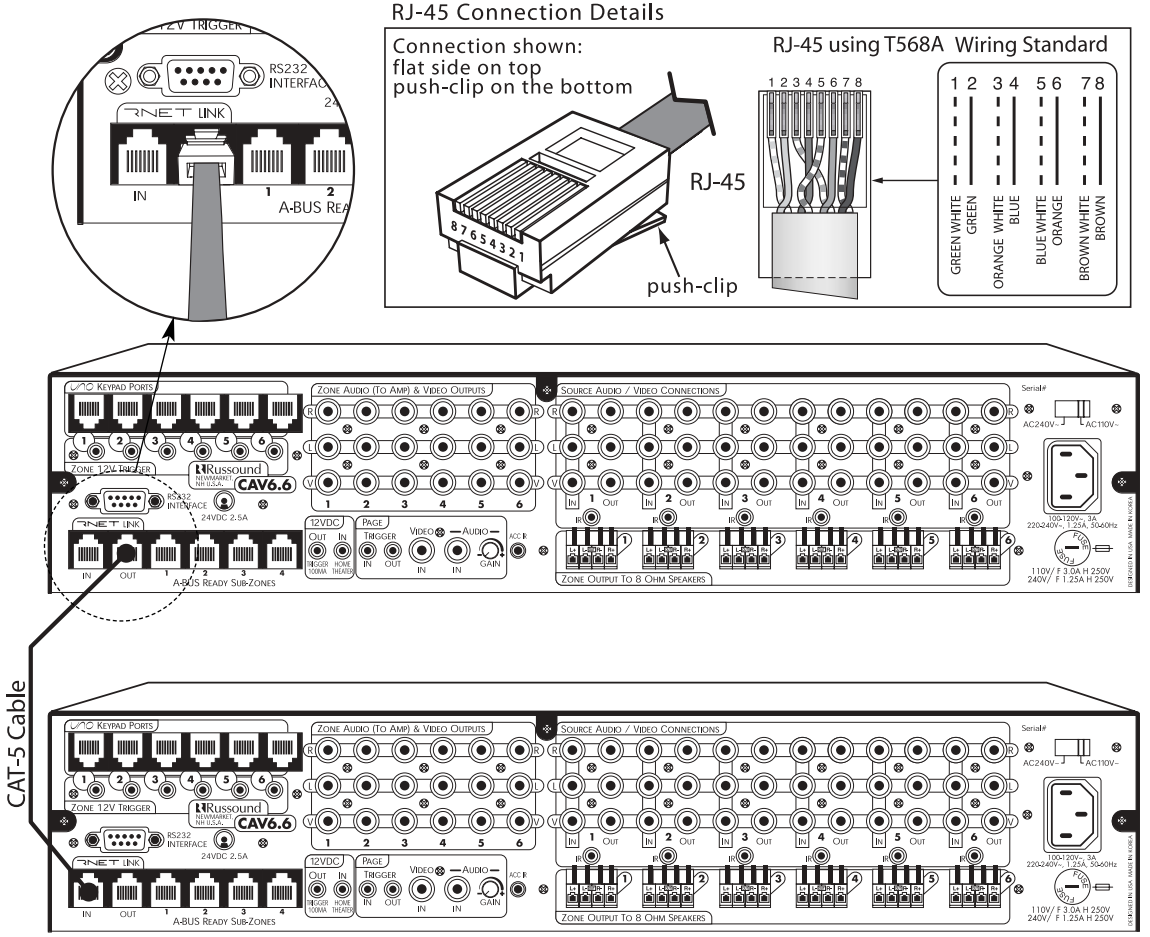


R-NET Link In and Link Out

The R-NET Link In and Link Out is used to connect two or more CAV6.6 controllers. The connection is made using a CAT-5 patch cable from the Link Out of the master CAV6.6 and into the Link In of the next CAV6.6. Along with R-NET data signals, the R-NET Link In and Link Out jack passes the six source IR signals. These are only for source-specific IR remote repeating, not codes initiated from the controller's internal IR library. The CAT-5 patch cable should not exceed 18 inches in length to avoid potential cross-talk between the source-specific IR repeating signal lines.

Note: If two or more CAV6.6 controllers will be connected using the R-NET Link In and Link Out ports, each controller must have a unique Controller ID ***(see Controller Setup - Flow Chart on page 65)*** *prior to being connected through the R-NET ports. The Controller ID assignment must be performed during the Controller Setup section of the Installation menu.*

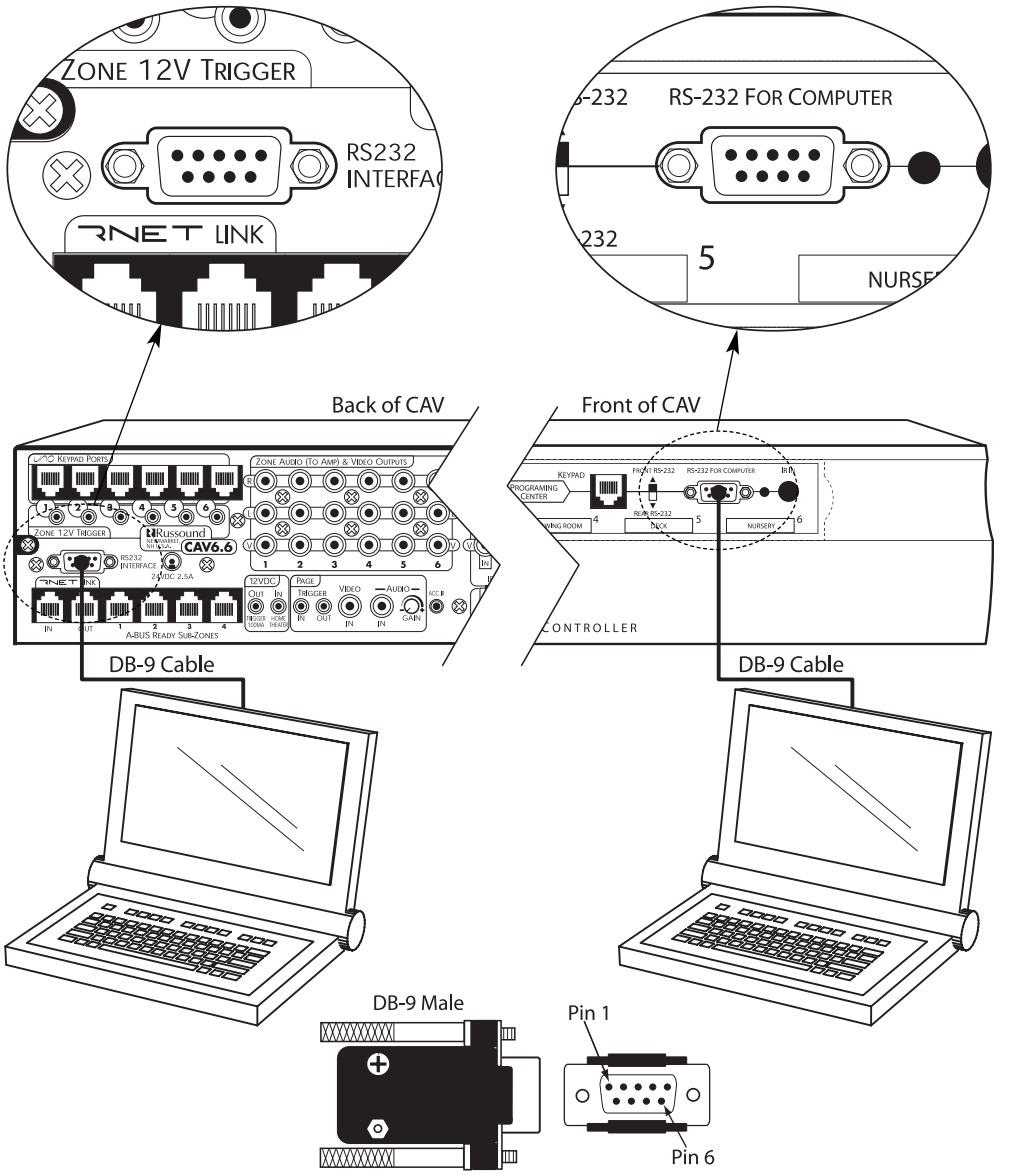
The R-NET Link In and Link Out is also used to connect the CAV6.6 to other Russound products with R-NET.



INSTALLER
MAKING CONNECTIONS

RS-232 Interface

The CAV6.6 supports RS-232 communication with various third party automation systems or PC for programming of the controller. Select the appropriate RS-232 port to update CAV6.6 OS software (see Component Guides-Front Panel).The two RS-232 com ports are located on the front and the back of the CAV6.6 and use a DB-9 cable connection. For RS-232 protocol and the backup PC application, see the Document Center at *www.russound.com.* Look for the Technical Documents under Multi-source/Multi-room products.



Before proceeding to the system programming section, it's important to conduct an initial test to determine that the hardware components are working properly.

1. Connect the speaker wires from Zone #1 to the CAV6.6 Zone #1 speaker output connectors.

2. Connect an UNO-S2 keypad to Keypad Port #1 on the rear of the CAV6.6.

3. Connect a source to the Source #1 Input on the CAV6.6 using RCA A/V patch cables.

4. Plug a supplied 845.1 IR emitter into the Source #1 IR Output Jack and adhere the emitter end to the source equipment's IR window.

5. Plug in the main power cords for the CAV6.6 and the source.

6. Turn on the main power switch on the CAV6.6 and the source.

7. Manually command the source to provide audio or use the source remote control.

8. Press the power button on the UNO-S2 keypad and select Source #1.

Congratulations – you should now hear the source through the speakers in Zone #1. Now that you have confirmed the hardware operation, you can proceed to System Programming to set up keypad source control.

If there is no sound, follow these diagnostic steps:

1. Check the source to see that it is operating properly.

2. Check the RCA A/V cable connections from the source to the Source #1 Input on the CAV6.6.

3. Check the speaker connections and verify that they are correct and are connected to the Zone #1 speaker outputs.

4. Check to see that the keypad is connected to the Zone #1 Keypad Port and verify the CAT-5 is properly terminated at both ends.

If none of these steps produce successful results, call Russound Tech Support for further assistance.

INSTALLER
SYSTEM PROGRAMMING OVERVIEW

This manual includes items that are designed to assist in the programming process.

Sample Configurations
A series of sample configurations are provided (pages 72-83) to showcase a variety of system designs and component options.

Forms
Three blank reproducible forms (pages 44-46) are included as planning tools when determining sources, settings and zone preferences. The Source and Zone Information forms and the Macro Editor form should be completed before programming and referred to during the installation menu process. This speeds up programming time and reduces missed or incorrect entries. These forms also serve as system reference documents if future troubleshooting is needed.

IR Device Codes
This list of command type IR device codes (pages 84-86) reflects the built-in IR codes in the CAV6.6 library. During programming, these codes will be entered for each source at the "Device Code" prompt. If a code is not listed for a source, the Learn IR procedure is available to learn in and centrally store IR codes.

Source Names
A list of assignable Source Names (page 71) is provided for advance selection and source form completion before programming.

Flow Charts
Installation Menu flow charts (pages 59-69) provide a graphical representation of the programming process.

Installation Menu
The Installation Menu (pages 47-58) provides the step-by-step complete programming procedure for the keypad and the controller.

Although you can begin programming at any point within the Installation Menu, the following sequence is recommended for initial installations, as it progresses from the most basic requirements to the more advanced features.

1. Controller Setup (CTRLR SETUP) (page 54)
This procedure sets the controller ID number within the system. This number must be manually set when multiple CAV6.6's are linked through R-NET within one system. This procedure is not necessary for systems with only one CAV6.6.

2. Number of Sources (# of Sources/SOURCE SETUP) (page 53)
This procedure sets the number of sources used in the system. This prevents the user from selecting a source input that is not used.

3. Basic Setup (SOURCE SETUP) (page 48)
This procedure is mandatory to set up each source for keypad source control and is the cornerstone of the programming process.

4. Learn IR (page 57)
This procedure is used when the source-specific IR code is not found in the built-in IR code library. This allows IR commands to be learned into the system and centrally stored.

5. Macro Editor (page 57)
This procedure compiles multiple IR codes to be initiated by a single button press. One macro can have up to 10 commands, including other macros, and up to 132 macros can be entered.

6. Source Volume Trim (SOURCE SETUP) (page 51)
This procedure matches audio output signals for all sources for seamless switching.

7. Numeric IR (SOURCE SETUP) (page 51)
This procedure sets up control of a source that supports direct numeric commands.

8. Key Configuration (SOURCE SETUP) (page 49)
This procedure customizes individual key functions on a per-zone basis for source control.

9. Power Management (page 55)
This function incorporates IR macro commands to automatically control the power state of the sources when the system is in use or when a home theater is sharing sources. This advanced feature uses audio signal monitoring to confirm source power, which provides the user with worry-free operation.

10. Zone Volume Trim (ZONE SETUP) (page 54)
This procedure limits the maximum volume allowed in a zone, regardless of keypad volume adjustment.

11. System On Enable (SYSON ENABLE/ZONE SETUP) (page 54)
This feature allows a zone to join or opt out of an “all on” command.

12. Party Enable (ZONE SETUP) (page 54)
This feature allows a zone to join or opt out of Party Mode participation.

13. Master Enable (ZONE SETUP) (page 54)
This feature allows a zone the option of becoming a Master keypad in Party Mode.

14. Page Enable (ZONE SETUP) (page 54)
This feature allows a zone to hear or to block paging.

15. Page Volume (ZONE SETUP) (page 54)
This feature allows adjustment of the paging volume in a zone.

Source Information Form

	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6
Source Name						
Manufacturer						
Model #						
IR Command Type *						
IR Device Code (learned or 4-digit)						
Numeric IR (Y or N)						
Highest Number						
Auto Play (Y or N)						
Source Volume Trim (dB) -16dB<>0dB						
Source Select Command						
Power Mgmt Power On Command						
Power Mgmt Signal Sense Delay (No, 5-60 sec)						
Power Off Command						

*IR Command Type, e.g., TV, Cable, SAT/DSS, VCR, Cassette, LD, DAT, DVD, Tuner, CD, etc. See pages 84-86

Zone Information Form

Zone Number	Zone Name	Zone Volume Trim –16dB <> 0dB	System On Enable	Party Mode Enable	Master Keypad Enable	Page Enable	Page Volume 0 min - 100 max
1			Y **N**	**Y** N	**Y** N	**Y** N	
2			Y **N**	**Y** N	**Y** N	**Y** N	
3			Y **N**	**Y** N	**Y** N	**Y** N	
4			Y **N**	**Y** N	**Y** N	**Y** N	
5			Y **N**	**Y** N	**Y** N	**Y** N	
6			Y **N**	**Y** N	**Y** N	**Y** N	

(Default setting is bolded)

Macro Editor Form

Macro ID Number	
Macro Name	
Command 1	
Command 2	
Command 3	
Command 4	
Command 5	
Command 6	
Command 7	
Command 8	
Command 9	
Command 10	

Macro ID Number	
Macro Name	
Command 1	
Command 2	
Command 3	
Command 4	
Command 5	
Command 6	
Command 7	
Command 8	
Command 9	
Command 10	

Macro ID Number	
Macro Name	
Command 1	
Command 2	
Command 3	
Command 4	
Command 5	
Command 6	
Command 7	
Command 8	
Command 9	
Command 10	

Macro ID Number	
Macro Name	
Command 1	
Command 2	
Command 3	
Command 4	
Command 5	
Command 6	
Command 7	
Command 8	
Command 9	
Command 10	

There are three item types in the installation menu:

Menu Item (m) – Acts as a folder that holds procedures and/or feature parameters.

Procedure (p) – A sequence of feature parameters to perform a guided operation, such as configuring an UNO key. Once you begin a procedure, the system will prompt for the needed information to complete the task.

Feature (f) – The actual parameters (settings) that will change the system configuration.

The following keys are used to navigate and make changes while using the installation menus:

To enter the Installation Menu, press and release the Setup Button (located on the keypad's right side) while in normal operating mode. The Setup Button is used to "back out" of the Installation Menu one level at a time. If you are performing a procedure, the Setup Button brings you back to the beginning of the procedure. Once you have reached the top level of the Installation Menu, pressing the Setup Button brings you back to normal operating mode.

⊕ *Adjust feature setting (increment).*

⊖ *Adjust feature setting (decrement).*

⏭ *Go to next menu / procedure / feature.* Not available while performing a procedure.

⏮ *Go to previous menu / procedure / feature.* Not available while performing a procedure.

▶ *Enter menu / begin procedure / show current feature setting.* While performing a procedure, it is also used to advance to the next sequential feature setting once the current feature has been viewed or adjusted.

INSTALLER
INSTALLATION MENU

The following items make up the Installation Menu:

SOURCE SETUP (m) ⏯ ZONE SETUP (m) ⏯ CTRLR SETUP (m) ⏯ POWER MGT (p) LEARN IR (p) ⏯ MACRO EDITOR (p) ⏯ SYSTEM INFO (m) ⏯

SOURCE SETUP (m)

Source Setup allows the system's sources to be configured.

The following items can be found in the SOURCE SETUP menu:

BASIC SETUP (p) ⏯ KEY CONFIG (p) ⏯ SOURCE NAMES (p) ⏯ SRC VOL TRIM (p) ⏯ NUMERIC IR (p) ⏯ SRC SEL CMD (p) ⏯ # OF SOURCES (f) ⏯

BASIC SETUP (p)

NOTE: The BASIC SETUP procedure should be performed for each source before proceeding to other source setting changes.

This procedure uses built-in source "templates" to quickly and easily configure the source settings needed for basic operation of the source component. Before performing BASIC SETUP, connect the source components to the CAV 6.6 as outlined in the Source Connections section. Also be sure that all sources are powered on. ***See Basic Setup - Flow Chart on page 59***

1. SOURCE NUM (f) – Select the source to be configured.

2. SOURCE NAME (f) – Select the name for the source (e.g., DVD, Aux 2, Jazz, etc.).

3. COMMAND TYPE (f) – Select the type of command template (e.g., CD, TV, etc.). Selecting the command type template will tell the CAV 6.6 how to configure the key's command and text for the source component.

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. (See Learning IR procedure for instructions on how to learn IR codes.)

ii. TEMPLATE TYP (f) – Select the template type to define what type of source component is being used. (This will tell the CAV 6.6 how to configure the key commands and text for the source component if it is a learned source.) Procedure advances to USE NUM IR? (step 7).

b. Selected: Unassigned The template for the selected source is cleared. (All key assignments and other source settings will be erased.) Procedure advances to SAVE CHANGES (step 10)

c. All Other Selections: Procedure advances to DEVICE CODE (step 4)

4. DEVICE CODE (f) – Enter source component code number listed in this manual's Reference section.

5. TEST IR? (f) – If "Yes" is selected, the CAV 6.6 sends a power command to the source component. If "No" is selected, the procedure advances to USE NUM IR? (step 7)

6. SUCCESS? (f) – If the power to the source component was turned off, select "Yes" otherwise select "No." By selecting "No" the Procedure returns to DEVICE CODE (step 4) to allow selection of another code number from the provided list.

7. USE NUM IR? (f) – Indicates the source component has numeric scrolling, such as multi-disc CD player (See NUMERIC IR Setup Procedure for advanced settings or more information). "No" advances menu to AUTO PLAY (step 9).

8. HIGHEST NUM (f) – Enter the highest possible number; for example, a 100-disc CD player would have a max number of 100.

9. AUTO PLAY? (f) – "Yes" tells the CAV 6.6 to issue a PLAY command whenever the source is selected for listening. This option is skipped if the source type (COMMAND TYPE) chosen does not have a PLAY command associated with it.

10. SAVE CHANGES? (f) – Select "yes" to save changes. Procedure returns to SOURCE NUM to allow configuration of another source.

KEY CONFIG (p)

Key Configuration defines zone-specific key functions for each source. ***See Key Config. - Flow Chart on page 60***

1. ZONE NUM (f) – Select the zone the key will be configured for. Changes are made for that zone only; default setting is "All Zones."

2. SOURCE NUM (f) – Select the source the key will be configured for.

3. SELECT A KEY (f) – Using ⊕ or ⊖, select the keypad key to be configured.

4. KEY TYPE (f) – Either "Key Press," "Key Hold" or "Both" will activate the command.

INSTALLER
INSTALLATION MENU

Key Config (cont'd.)

5. KEY NAME (f) – Name that appears on the keypad display when the command is activated.

6. COMMAND TYPE (f) – Select the type of source command (e.g., CD, TV, etc.).

a. Selected: Learned IR – Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 8)

b. Selected: Unassigned The key configuration is cleared. Procedure advances to SAVE CHANGES (step 9)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 8)

d. Selected: Macro: **(To build macros, see Macro Editor page 57)**

i. MACRO - Macro loads a series of commands which are processed when activated.

ii. MACRO ID – Enter the macro ID number. Menu advances to SAVE CHANGES (step 9)

e. All Other Selections: Procedure advances to DEVICE CODE (step 7)

7. DEVICE CODE (f) – Enter source component code number listed in this manual's Reference section.

8. KEY FUNCTION (f) – Select a function for the button.

9. SAVE CHANGES? (f) – Select "yes" to save changes. Procedure advances to ZONE NUM (step 1)

SOURCE NAMES (p)

This procedure allows the installer to customize the source names for the sources attached to the CAV6.6. ***See Source Setup Menu on Page 48 and Source Names/Vol Trim - Flow Chart on page 61***

1. SOURCE NUM (f) – Select the source number this name will be assigned to.

2. SOURCE NAME (f) – Select the name. SOURCE NUM will reappear on the LCD panel; repeat the instructions for each source to be labeled.

SRC VOL TRIM (p)

This procedure allows the installer to adjust the output level of an individual source. The output volume is adjustable by 16 dB. At 0 dB (the default setting), the volume is at max output; at -16 dB the volume is at the lowest setting possible for that source only. ***See Source Setup Menu on Page 48 and Source Names/Vol Trim - Flow Chart on page 61***

1. SOURCE NUM (f) – Select the source number this level will be set for.

2. TRIM LEVEL (f) – 0 dB is max output volume, -16 dB is lowest setting.

NUMERIC IR (p)

Numeric IR allows the installer to program source specific number functions (Channel 12, Disk 89, etc.). ***See Source Setup Menu on Page 48 and Numeric IR - Flow Chart on page 62***

1. SOURCE NUM (f) – Select the source number this function will be configured for.

2. USE NUM IR? (f) – Tells the system whether the source component has numeric scrolling, such as 100-disc CD player. A selection of "no" disables Numeric IR and advances to SAVE CHANGES

3. HIGHEST NUM (f) – Enter the highest possible number; for example, the 100-disc CD player would have a max number of 100.

4. NUMERIC TEXT (f) – Select Numeric descriptive text.

5. PREFIX CMD (f) – Tells the system whether a command will be issued prior to the selection of the numerical value (e.g., *Disc* 1,2). If "no," procedure advances to SUFFIX CMD (step 9)

6. COMMAND TYPE (f) – Select the type of command (e.g., CD, TV, etc.).

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 8)

b. Selected: Unassigned The numeric IR Prefix command is cleared. Procedure advances to SUFFIX CMD (step 9)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 8)

d. Selected: Macro: **(To build macros, see Macro Editor page 57)**

i. MACRO - Macro loads a series of commands which are processed when activated.

INSTALLER
INSTALLATION MENU

Numeric IR (cont'd)

ii. MACRO ID – Enter the macro ID number. Menu advances to SUFFIX CMD (step 9)

e. All Other Selections: Procedure advances to DEVICE CODE (step 7)

7. DEVICE CODE (f) – Source component code for IR control.

8. KEY FUNCTION (f) – Select a function (Disc, etc.).

9. SUFFIX CMD (f) – Tells the system whether a command will be issued after the selection of the numerical value (e.g., 1, 2 *Enter*). If "no," procedure advances to SAVE CHANGES (step 13)

10. COMMAND TYPE (f) – Select the type of source command (e.g., CD, TV, etc.).

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 12)

b. Selected: Unassigned The numeric IR Suffix command is cleared. Procedure advances to SOURCE NUM (step 1)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 12)

d. Selected: Macro: **(To build macros, see Macro Editor page 57)**

i. MACRO - Macro loads a series of commands which are processed when activated.

ii. MACRO ID – Enter the macro ID number. Menu advances to SAVE CHANGES (step 13)

e. All Other Selections: Procedure advances to DEVICE CODE (step 11)

11. DEVICE CODE (f) – Source component code for IR control.

12. KEY FUNCTION (f) – Select a function (Enter, Play, etc.).

13. SAVE CHANGES? (f) – Select "yes" to save the changes.

SRC SEL CMD (p)

This procedure permits a command to be sent to the source component when the source component is initially selected. ***See Source Setup Menu on Page 48 and Source Select Command & # Of Sources - Flow Chart on page 63***

1. SOURCE NUM (f) – Select the source number this command will be configured for.

Source Select Command (cont'd)

2. COMMAND TYPE (f) – Select the type of source command (e.g., CD, TV, etc.).

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 4)

b. Selected: Unassigned The source select command is cleared. Procedure advances to SAVE CHANGES (step 5)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 4)

d. Selected: Macro: **(To build macros, see Macro Editor page 57)**

i. MACRO - Macro loads a series of commands which are processed when activated.

ii. MACRO ID – Enter the macro ID number. Menu advances to SAVE CHANGES (step 5)

e. All Other Selections: Procedure advances to DEVICE CODE (step 3)

3. DEVICE CODE (f) – Source component code for IR control.

4. KEY FUNCTION (f) – Select a function (Play, Enter, etc.).

5. SAVE CHANGES? (f) – Select "yes" to save the changes.

 # OF SOURCES (f)

At this field it is necessary to enter the number of sources used in the CAV6.6 system (1 to 6). This limits the sources displayed on the keypad in the normal running mode when the source button is pressed, but also limits source selections in the configuration menus. ***See Source Setup Menu on Page 48 and Source Select Command & # Of Sources - Flow Chart on page 63***

ZONE SETUP (m)

NOTE: This procedure should be performed using the keypad installed in the zone to be configured. ***See Installation Menu on Page 48 and Zone Setup - Flow Chart on page 64***

Zone Setup allows the installer to adjust properties of the UNO Keypad controlled CAV6.6 zone. This series of menus allows the system's zones to be configured for these properties:

ZON VOL TRIM ⏭ SYSON ENABLE ⏭ PARTY ENABLE ⏭ MASTER ENABL ⏭ PAGE ENABLE ⏭ PAGE VOLUME ⏭

Zone Setup (cont'd)

1. ZON VOL TRIM (f) This feature allows the installer to adjust the output volume to each zone. -16 dB (lowest) to 0 dB (max)(default).

2. SYSON ENABLE(f) This feature is either disabled or enabled. If disabled (default), an All On command activated from another zone will not turn on the disabled zone. If enabled, an All On command activated from another zone will turn on the enabled zone.

3. PARTY ENABLE(f) This feature is either disabled or enabled. If disabled, Party Mode activation from another zone will not affect the disabled zone. If enabled (default), the zone will participate with Party Mode.

4. MASTER ENABLE(f) This feature is either disabled or enabled. If disabled, the zone cannot host a master keypad during Party Mode. If enabled (default), the zone has the option of hosting the Master keypad.

5. PAGE ENABLE(f) This feature is either disabled or enabled. It allows the option of receiving or blocking a page in a zone. If disabled, the page will not be sent to the zone. If enabled (default), the page will be sent to the zone.

6. PAGE VOLUME(f) This feature allows the installer to adjust the Page Volume for the zone, from 0 (min) to 100 (max).

CTRLR SETUP (m)

Controller Setup is the basic configuration of the controller. This setup menu selects the options for Controller ID and Factory Initialization. ***See Installation Menu on Page 48 and Controller Setup - Flow Chart on page 65***

1. CONTROLLER ID (f) This defines the Controller ID for this system. The default is 1 but when multiple controllers are used, each additional controller ID must be sequential and unique and be set before being connected to the system. Note that the system must be restarted before the controller will assume the new ID.

2. FACTORY INIT (f) ***WARNING: This procedure returns the controller to its original settings - use with discretion.***

Factory Initialization allows the installer to erase all programmed settings and returns the settings to the factory default settings. All settings including source equipment IR commands will need to be reentered. An "Are you sure?" prompt and a "no" response allows the installer to cancel the reset; a "yes" at the prompt will load factory/default settings.

POWER MANAGEMENT (p)

The CAV6.6 is capable of managing the power state of the connected source equipment. The power management is configured on a source-by-source basis.

All sources that have power management enabled are initialized by a “POWER ON” command or macro which must cause the source to produce an audio signal. Power management is initialized when the first keypad is turned on or when the home theater trigger input has 12VDC present. The 12VDC trigger output is turned on when the first zone is turned on.

All sources that have power management enabled are turned off by the “POWER OFF” command after all zones have been turned off, with a timeout of five minutes.The 12VDC trigger output is turned off one minute after that. This timeout is postponed for as long as the home theater trigger input has 12VDC present. ***See Installation Menu on Page 48 and Power Management - Flow Chart on page 66***

1. SOURCE NUM (f) – Select the source number this feature will be configured for.

2. SENSE DELAY (f) – This option tells the controller how long to wait before looking for the source’s audio signal to confirm that the component responded to the command (if a macro is selected for the Power On command). A sense delay must be long enough to allow the macro to cycle through.

3. POWER ON CMD (f) – Tells the controller to turn on the selected source equipment (by SOURCE NUMBER) when any of the UNO System Keypads is turned on. If “no,” procedure advances to POWER OFF CMD (step 7)

4. COMMAND TYPE (f) – Select the type of source command (e.g., CD, TV, etc.).

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 6)

b. Selected: Unassigned The Power On command is cleared. Procedure advances to POWER OFF CMD (step 7)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 6)

d. Selected: Macro: **(To build macros, see Macro Editor page 57)**

i. MACRO - Macro loads a series of commands which are processed when activated.

Power Management (cont'd)

ii. MACRO ID – Enter the macro ID number. Menu advances to POWER OFF CMD (step 7)

e. All Other Selections: Procedure advances to DEVICE CODE (step 5)

5. DEVICE CODE (f) – Source component code for IR control.

6. KEY FUNCTION (f) - Select a function (Play, Enter, etc.).

7. POWER OFF CMD (f) – Tells the controller to turn off the selected source equipment (by SOURCE NUMBER) when the last of the UNO System Keypads is turned off. If "no," procedure advances to SAVE CHANGES (step 11)

8. COMMAND TYPE (f) – Select the type of source command (e.g., CD, TV, etc.).

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 10)

b. Selected: Unassigned The Power Off command is cleared. Procedure advances to SAVE CHANGES (step 11)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 10)

d. Selected: Macro: **(To build macros, see Macro Editor page 57)**

i. MACRO – Macro loads a series of commands which are processed when activated.

ii. MACRO ID – Enter the macro ID number.Menu advances to SAVE CHANGES (step 11)

e. All Other Selections: Procedure advances to DEVICE CODE (step 9)

9. DEVICE CODE (f) – Source component code for IR control.

10. KEY FUNCTION (f) – Select Keypad function.

11. SAVE CHANGES? (f) – Select "yes" to save the changes.

LEARN IR (p)

This procedure allows IR commands to be learned into the system and be centrally stored in the main controller to let the system access the same IR codes that operate the source equipment.
NOTE: IR codes must be learned in using a keypad connected to the programming port on the CAV6.6's front panel, pointing the remote at the CAV6.6's front panel IR receiver only. ***See Installation Menu on Page 48 and Learn IR - Flow Chart on page 67***

1. LEARNED SRC (f) – Select the source whose commands will be learned into the controller.

2. KEY FUNCTION (f) – Select the function to be learned or deleted.

3. LEARN/DELETE (f) – Select Learn IR Now or Delete IR. If Learn IR Now, a "USE REMOTE" prompt appears. Point the learning remote at the controller's IR window. If Delete IR, procedure returns to LEARNED SRC (step 1)

4. TEST IR? (f) – If "yes," sends the learned command to the source component to test the IR. If the component responds, the IR test was a success. If the component does not respond the Code was not learned properly. If "no," menu goes back to LEARNED SRC (step 1)

5. SUCCESS? - Asks if the IR test was a success

IF YES - If the test was a success, specify "yes" and proceed to KEY FUNCTION (step 2)
IF NO - If the test was a failure, specify "no" and LEARN/DELETE (step 3) reappears on the display allowing another code to be learned in.

MACRO EDITOR (p)

This procedure is used to create a sequence of commands that are launched with one key touch or other event. Up to 132 macros can be created for the system, and each macro can contain up to 10 commands including other macros. ***See Installation Menu on Page 48 and Macro Editor - Flow Chart on page 68***

1. MACRO ID (f) – Number of Macro up to 132 including any previously named macros.

2. MACRO NAME (f) – Name of Macro (optional).

3. COMMAND NUM (f) – Number of Command up to 10.

Macro Editor (cont'd)

4. COMMAND TYPE (f) – Select the type of source command (e.g., CD, TV, etc.).

a. Selected: Learned IR Choose Learned IR if the pre-programmed IR code library does not support the source component.

i. LEARNED SRC (f) – Select the learned source bank to be assigned to the source component. Procedure advances to KEY FUNCTION (step 6)

b. Selected: Unassigned Selected command and subsequent commands are cleared. Procedure advances to COMMAND NUM (step 3)

c. Selected: Default Default selects the same device type and device code previously setup in BASIC SETUP. Procedure advances to KEY FUNCTION (step 6)

d. Selected: Macro:

i. MACRO - A macro can "call" another macro if a sequence of more than 10 commands is needed.

ii. MACRO ID – Enter the macro ID number. Menu advances to COMMAND NUM (step 3)

e. Selected: Delay Enter a 1- to 60-second delay time to postpone delivery of the next command in the macro. Procedure advances to COMMAND NUM (step 3)

f. All Other Selections: Procedure advances to DEVICE CODE (step 6)

5. DEVICE CODE (f) – Source component code for IR control.

6. KEY FUNCTION (f) – Select a function (Play, etc.).

SYSTEM INFO (m)

System Info allows the installer to view the controller's manufacturing build properties.
See Installation Menu on Page 48 and System Info - Flow Chart on page 69

#CONTROLLERS ⏯ BUILD TIME ⏯ BUILD DATE ⏯ VERSION ⏯

1. #CONTROLLERS Displays the number of CAV6.6 controllers in the system.

2. BUILD TIME Displays the Software Build Time of the controller.

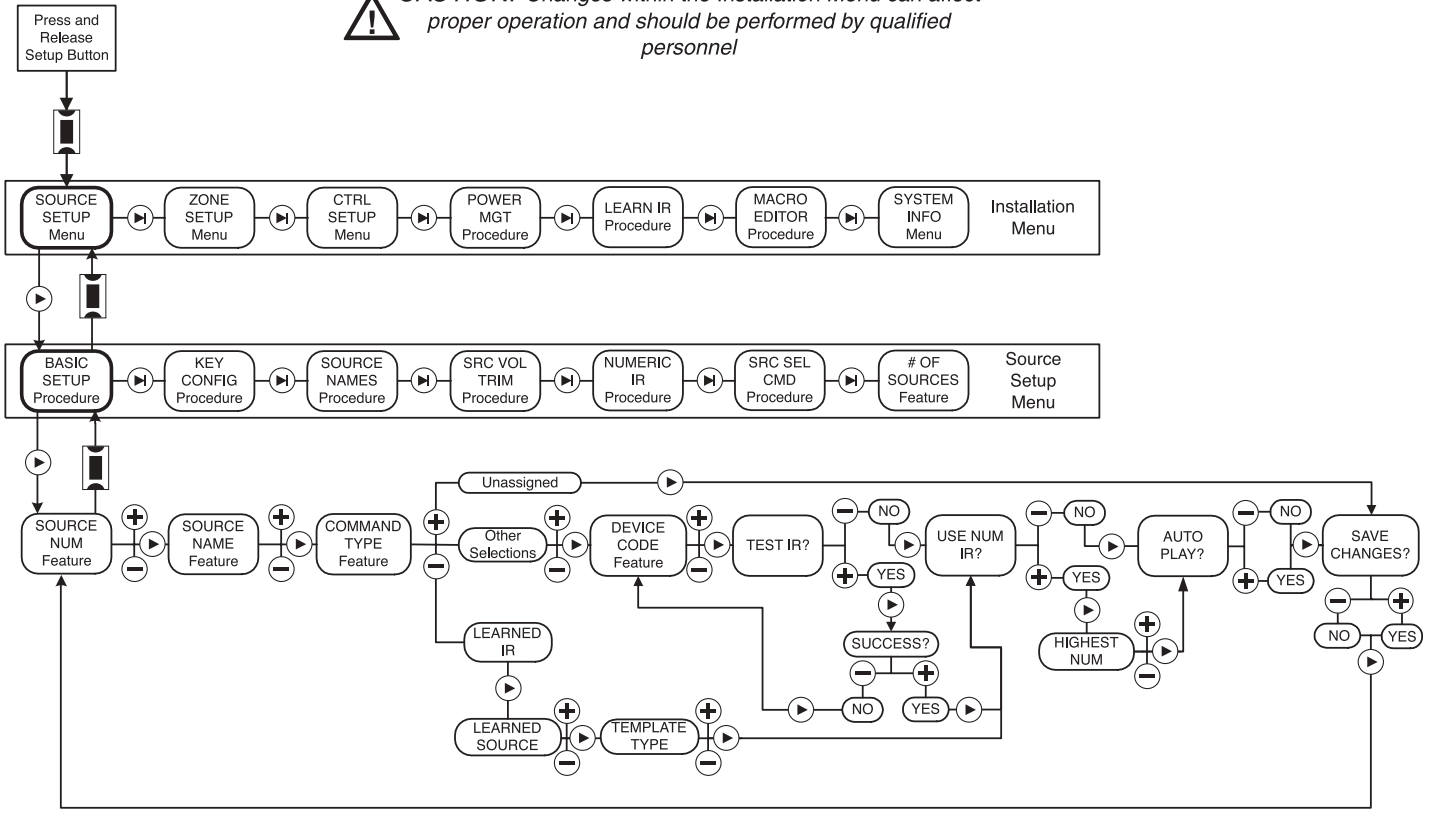
3. BUILD DATE Displays the Software Build Date of the controller.

4. VERSION Displays the software version of the CAV6.6.

Installation Menu

Source Setup: *Basic Setup* *Page 48*

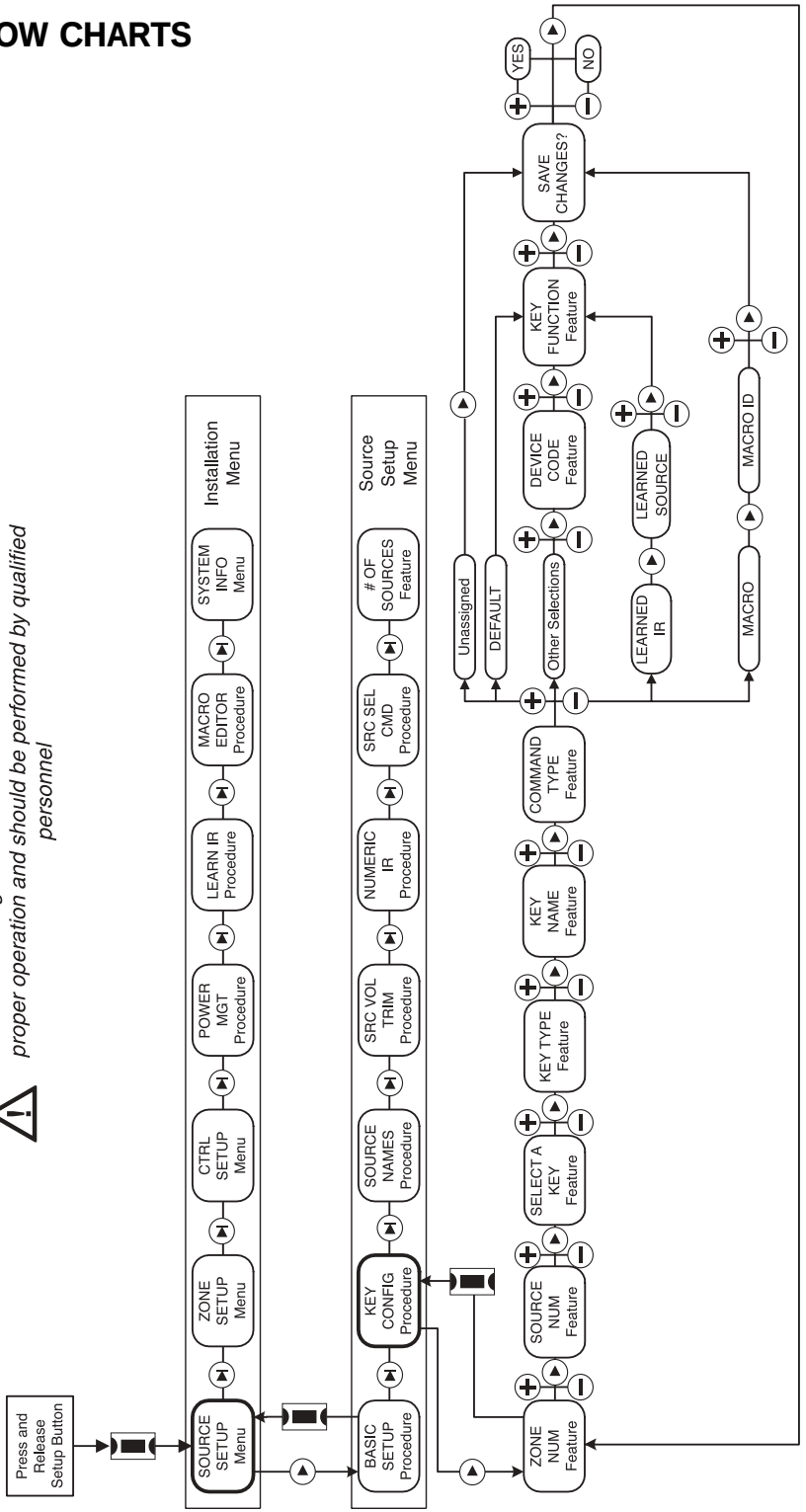
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel



Installation Menu

Source Setup: *Key Configuration* *Page 49*

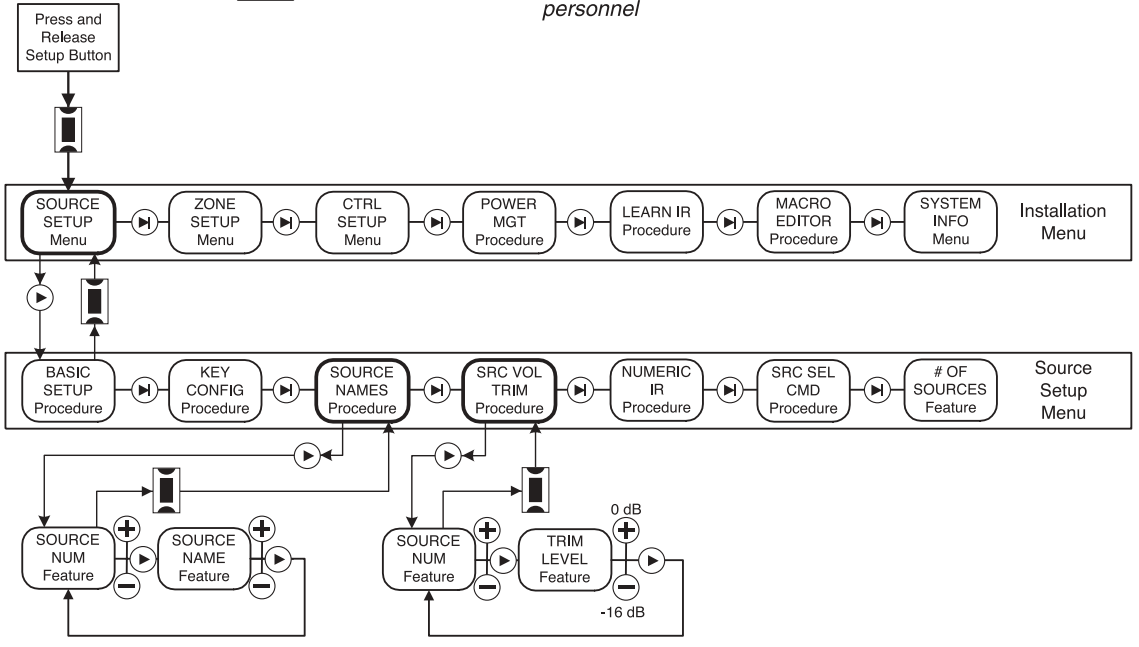
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel

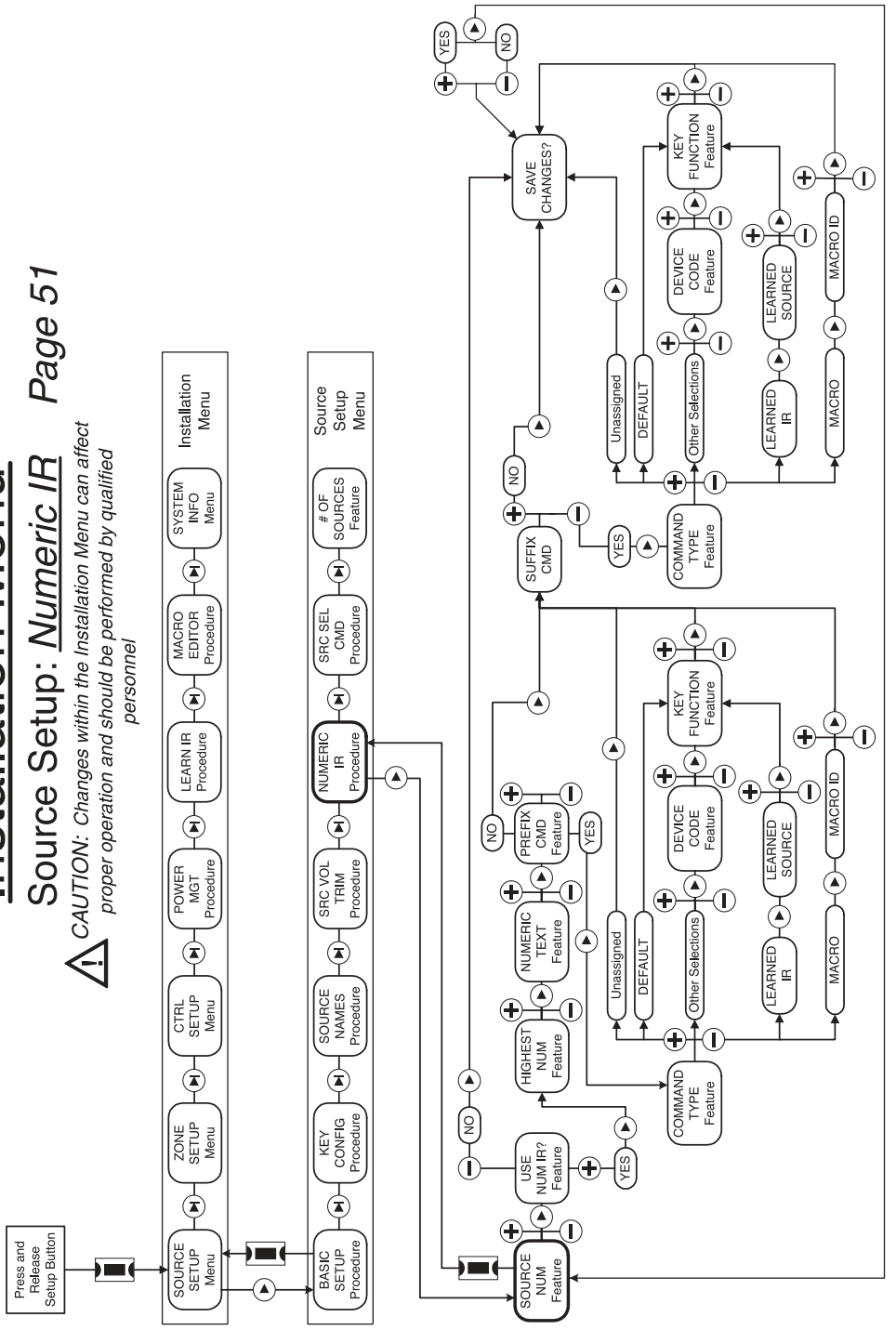


Installation Menu

Source Setup: *Source Names/Vol Trim* *Page 50-51*

CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel



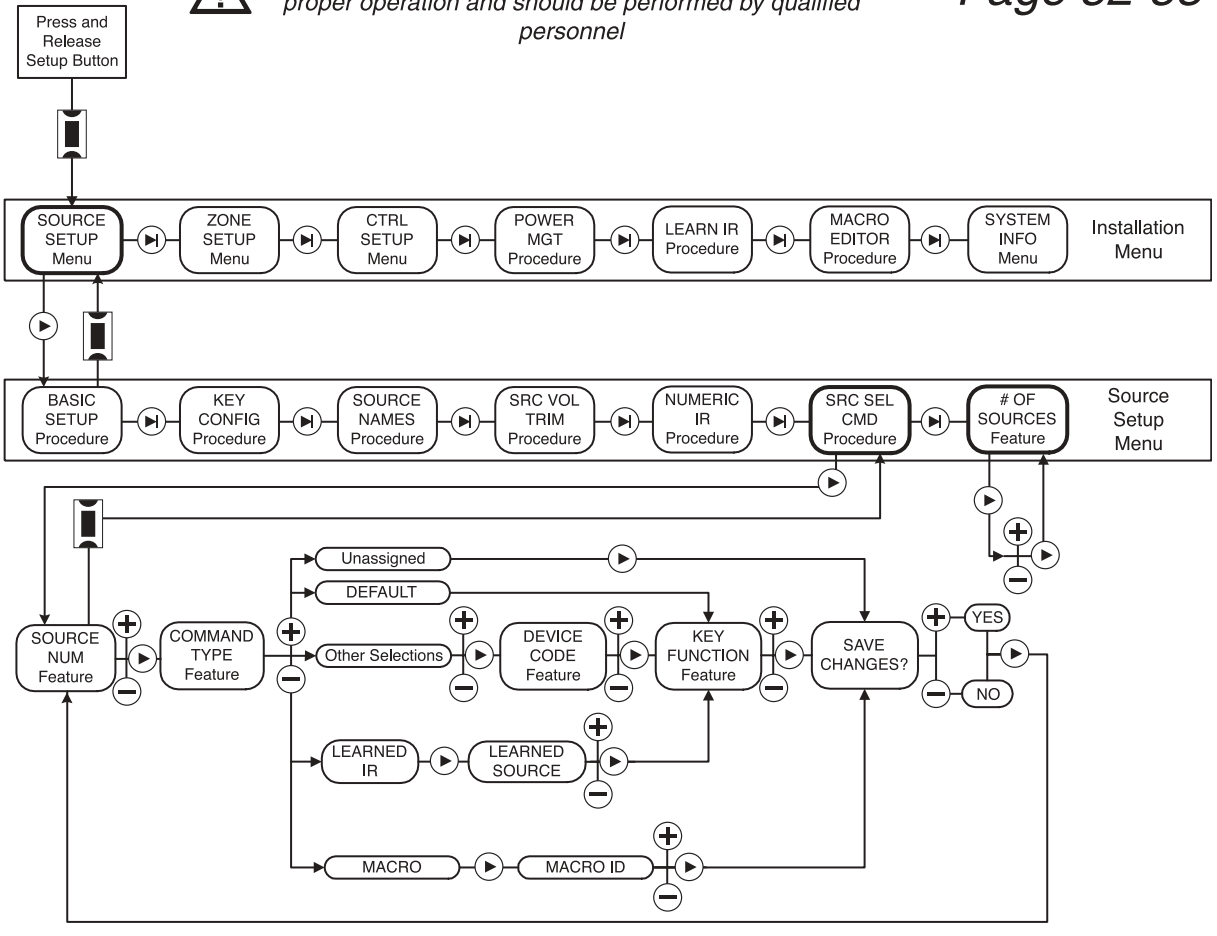

Installation Menu
Source Setup: Numeric IR
Page 51
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel
Press and Release Setup Button
SOURCE SETUP Menu
ZONE SETUP Menu
CTRL SETUP Menu
POWER MGT Procedure
LEARN IR Procedure
MACRO EDITOR Procedure
SYSTEM INFO Menu
Installation Menu
BASIC SETUP Procedure
KEY CONFIG Procedure
SOURCE NAMES Procedure
SRC VOL TRIM Procedure
NUMERIC IR Procedure
SRC SEL CMD Procedure
OF SOURCES Feature
Source Setup Menu
SOURCE NUM Feature
USE NUM IR? Feature
YES
NO
HIGHEST NUM Feature
NUMERIC TEXT Feature
PREFIX CMD Feature
COMMAND TYPE Feature
Unassigned
DEFAULT
Other Selections
DEVICE CODE Feature
KEY FUNCTION Feature
LEARNED IR
LEARNED SOURCE
MACRO
MACRO ID
SUFFIX CMD
SAVE CHANGES?

Installation Menu

Source Setup: *Source Select Command & # Of Sources*

CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel

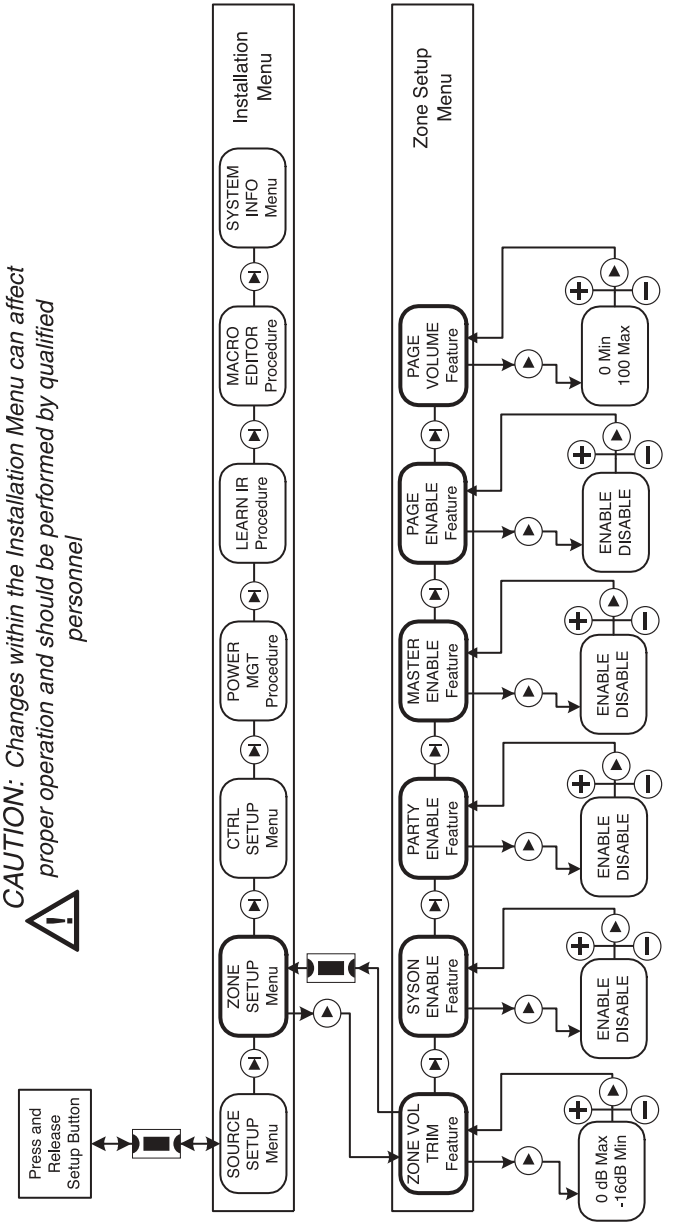
Page 52-53



Installation Menu

Zone Setup *Page 53*

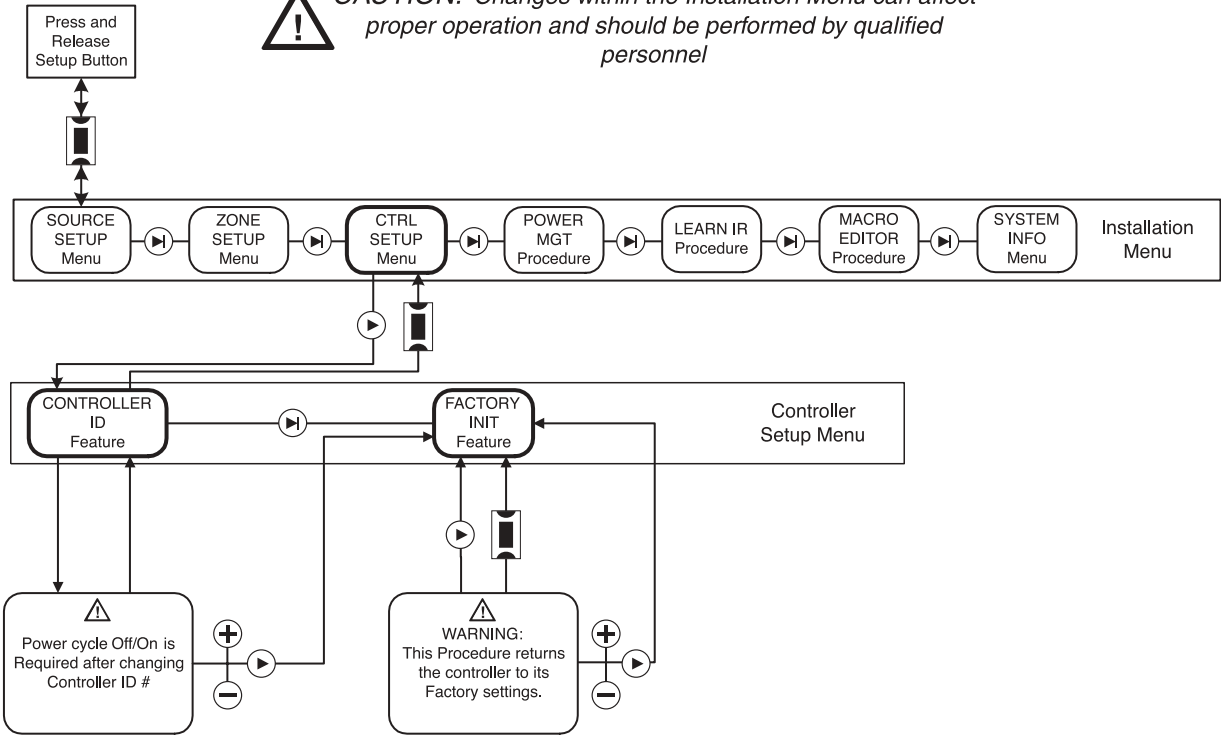
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel

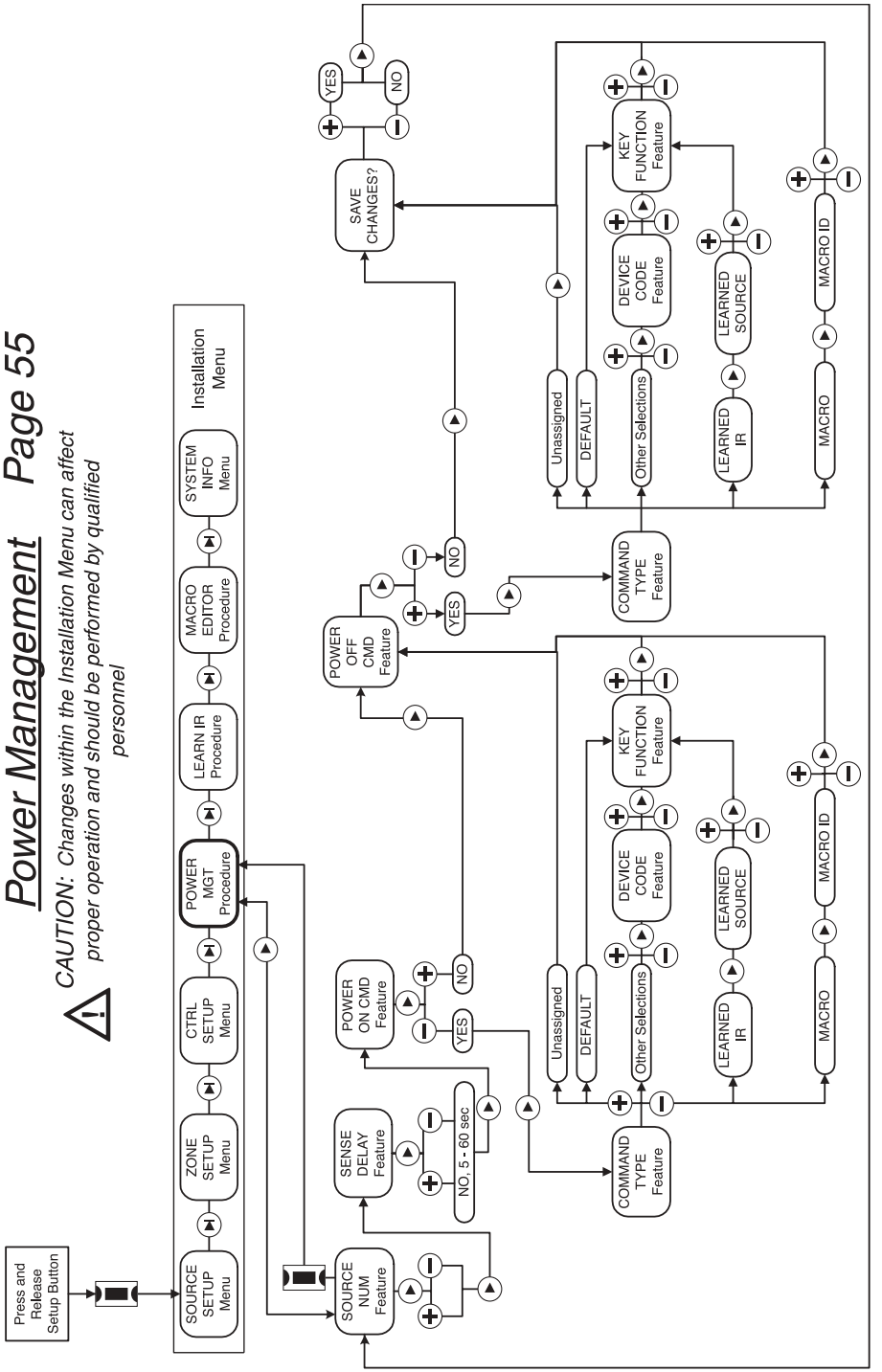


Installation Menu

Controller Setup *Page 54*

CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel

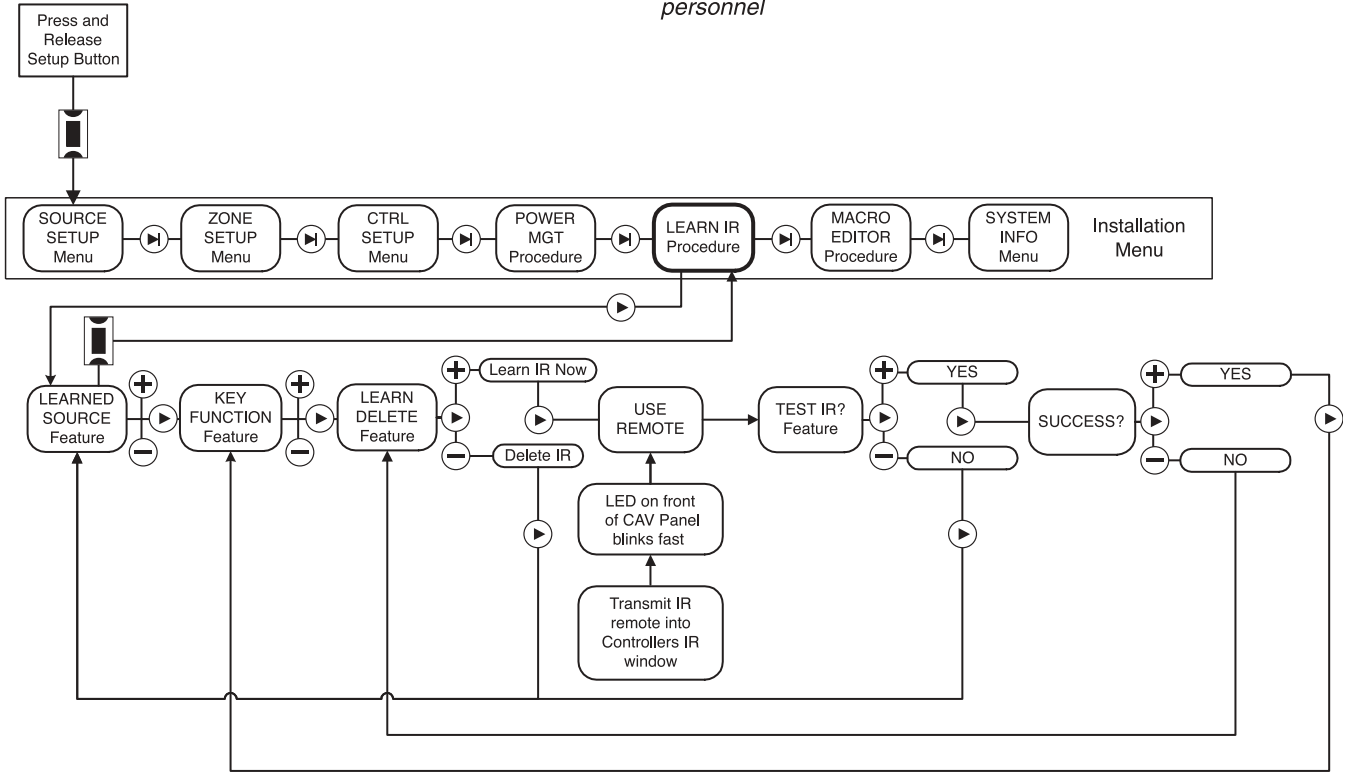

Press and Release Setup Button
SOURCE SETUP Menu
ZONE SETUP Menu
CTRL SETUP Menu
POWER MGT Procedure
LEARN IR Procedure
MACRO EDITOR Procedure
SYSTEM INFO Menu
Installation Menu
CONTROLLER ID Feature
FACTORY INIT Feature
Controller Setup Menu
Power cycle Off/On is Required after changing Controller ID #
WARNING: This Procedure returns the controller to its Factory settings.


Installation Menu
Page 55
Power Management
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel
Press and Release Setup Button
Installation Menu
SOURCE SETUP Menu
ZONE SETUP Menu
CTRL SETUP Menu
POWER MGT Procedure
LEARN IR Procedure
MACRO EDITOR Procedure
SYSTEM INFO Menu
SOURCE NUM Feature
SENSE DELAY Feature
NO, 5 - 60 sec
POWER ON CMD Feature
YES
NO
COMMAND TYPE Feature
Unassigned
DEFAULT
Other Selections
DEVICE CODE Feature
KEY FUNCTION Feature
LEARNED IR
LEARNED SOURCE
MACRO
MACRO ID
POWER OFF CMD Feature
SAVE CHANGES?

Installation Menu

Learn IR Page 57

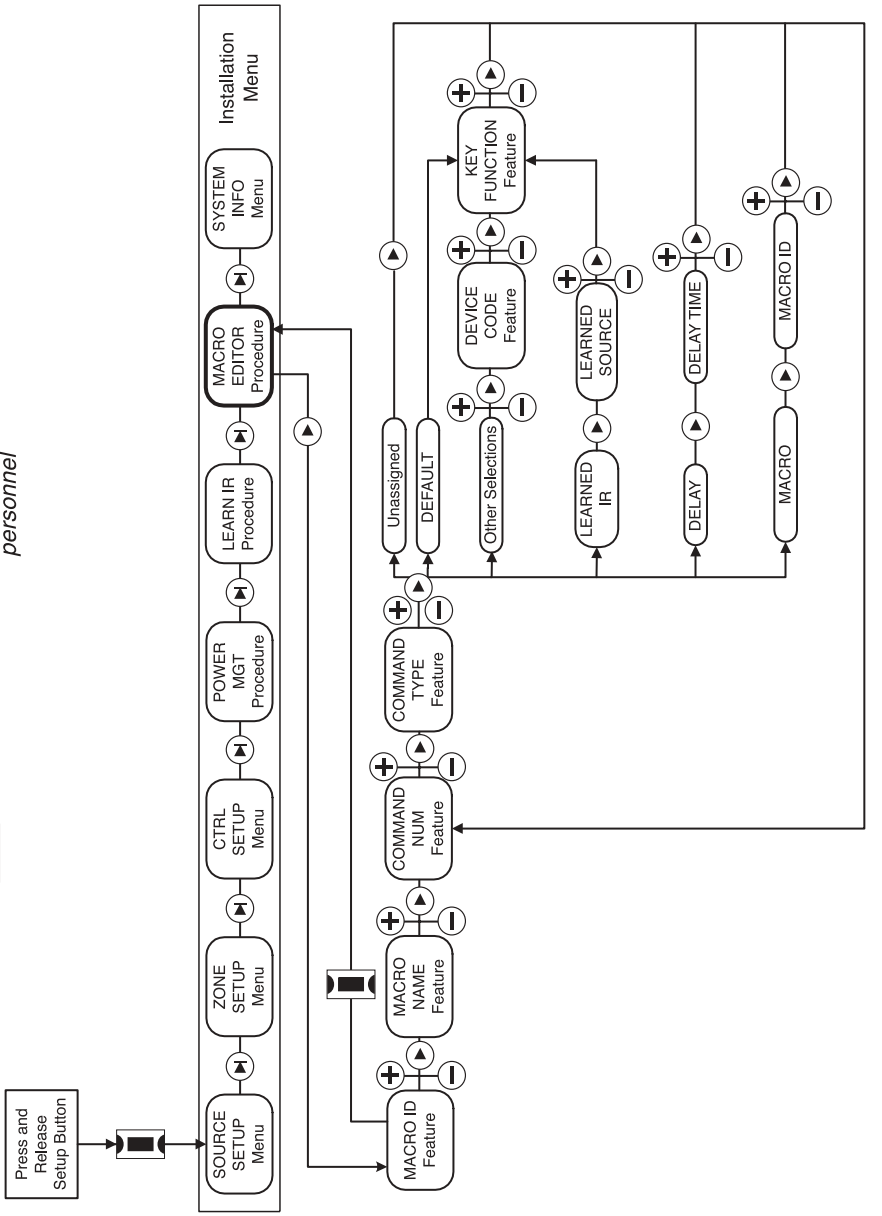
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel



Installation Menu

Macro Editor Page 57

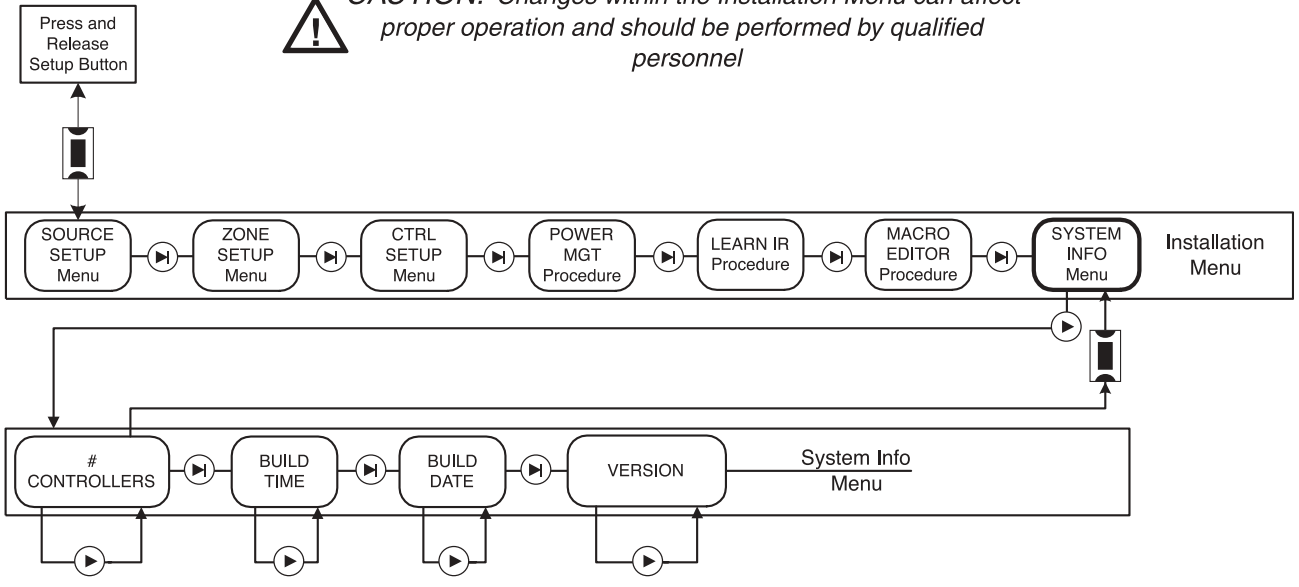
CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel



Installation Menu

System Info Menu *Page 58*

CAUTION: Changes within the Installation Menu can affect proper operation and should be performed by qualified personnel



REFERENCE SECTION

Source Names List

List of Source Names available for assignment.

Sample Configurations

Diagrams of various configurations using the CAV6.6, UNO-S2 keypads, A-BUS components, and other Russound products.

IR Codes

List of controller's IR device code library for source Device Code entries.

Technical Specifications

Product specifications for CAV6.6 controller and UNO-S2 keypad.

Warranty

Russound product warranty terms and conditions.

SOURCE NAMES

AUX	DVD Changer	Satellite 2
AUX 1	DVD Changer 1	Satellite 3
AUX 2	DVD Changer 2	Special
Blues	DVD Changer 3	Tape
Cable	DVD Player	Tape 1
Cable 1	DVD Player 1	Tape 2
Cable 2	DVD Player 2	TIVO
Cable 3	DVD Player 3	Tuner
CD Changer	Front Door	Tuner 1
CD Changer 1	Internet Radio	Tuner 2
CD Changer 2	Jazz	Tuner 3
CD Changer 3	Laser Disk	TV
CD Player	Media Server	VCR
CD Player 1	Mini Disk	VCR 1
CD Player 2	Mood Music	VCR 2
CD Player 3	Morning Music	Source 1
Classical	MP3	Source 2
Computer	Oldies	Source 3
Country	Pop	Source 4
Dance Music	Rear Door	Source 5
Digital Cable	Religious	Source 6
DSS Receiver	Replay TV	Source 7
DSS 1	Rock	Source 8
DSS 2	Satellite	
DSS 3	Satellite 1	

SAMPLE SYSTEM CONFIGURATION 1

Six Zones and Six Sources

The configuration shows how the CAV6.6 distributes audio/video throughout the house using six UNO System Keypads and six audio/video source components.

Source Components
The configuration allows for any zone to select any one of the six source inputs.

Keypads
The configuration uses a single UNO-S2 Keypad per zone. Each keypad is connected to the CAV6.6's Keypad Port using the RJ-45 T568A wiring configuration. Each keypad port number corresponds with the zone number. This gives complete control of the zone to one keypad.

The UNO-S2 Keypad can control the source equipment, volume for the zone, source selection, tone control, mute, and other functions. Programmable functions are also possible. The IR receiver on the keypad also allows the UNO-LRC1 and other remotes to control not only the zone but also the source equipment.

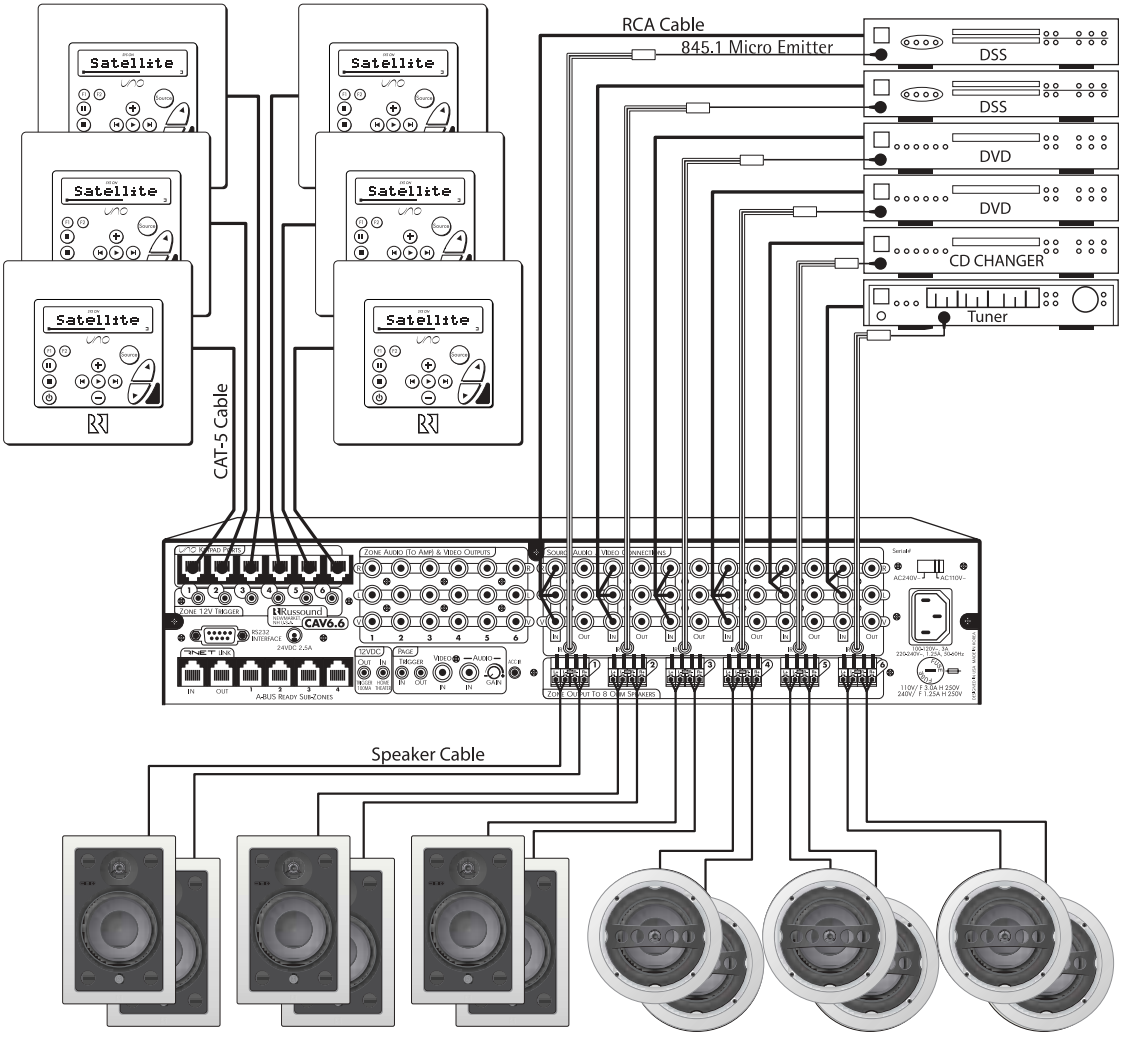
IR Remote control through Keypad
To control the source components via IR from the UNO-S2 Keypad, an IR emitter must be connected from the source component to the CAV6.6. The emitter is shown connected from the IR receiver on the source component to the source component's IR emitter output port on the rear on the CAV6.6. This type of configuration allows independent control over more than one identical source component. The IR from the remote will be routed to the selected source. When using the UNO-LRC1 remote, simply select "UNO" at the top of the remote, select source 1-6 and operate the source.

Speakers
Connect the speakers to the amplified CAV6.6 zones 1 through 6 using a "Home Run" from the individual amplified speaker outputs to the speakers. Use the detachable modular snap speaker connectors which are color coded and labeled for easy installation. For most installations, 16 gauge 4-conductor wire is recommended.

Components List:

- 1 - CAV6.6 Controller
- 6 - UNO-S2 Keypads
- 3 - pair Advantage Iso-Mount™ Speakers
- 3 - pair Advantage Twist & Tilt™ Speakers
- 6 - 845.1 Micro Emitters

Six Zones and Six Sources



SAMPLE SYSTEM CONFIGURATION 2

Integrate Multiple CAV6.6's

This configuration uses an additional CAV6.6 to add six additional amplified zones, controlled through UNO-S2 Keypads. The source components are connected to both CAV6.6s with RCA cables using the source in/loop out to interconnect the audio/video signals.

R-NET Link In and Link Out
Multiple CAV6.6s can be integrated as the two shown in this configuration. An RJ-45 CAT-5 patch cable allows for communication between the two CAV6.6s. System commands such as paging, ALL OFF, ALL ON, IR control, and PC control are transferred from one CAV6.6 to another through the Link In and Link Out Ports using the patch cable.

Source Components
The same six audio/video source components are used for both CAV6.6s. The source components are connected to the Source Audio/Video Input Connections on the first CAV6.6 while the Audio/Video Source Output Connections from the first CAV6.6 are connected to the Source Audio/Video Input Connections on the second CAV6.6.

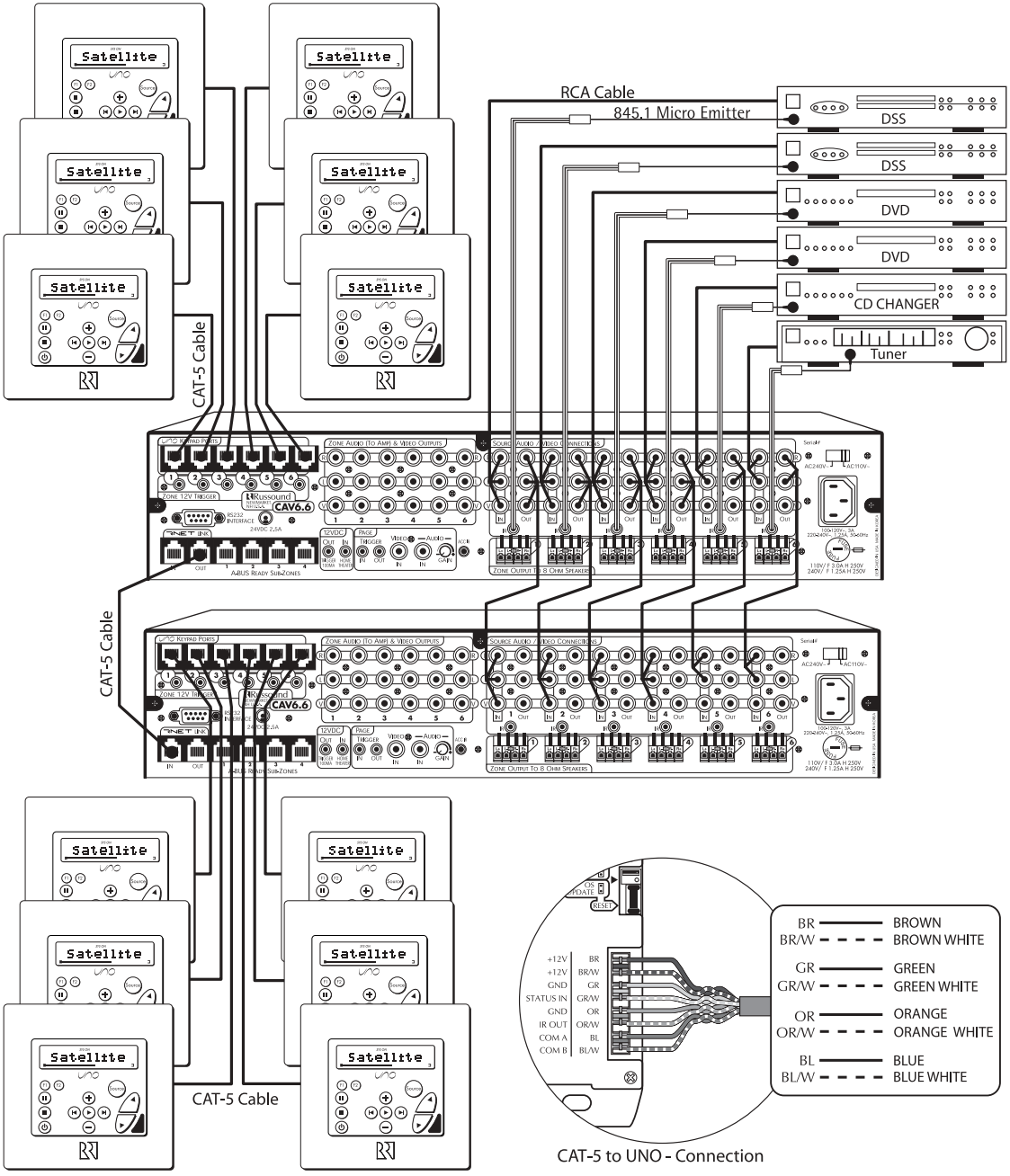
Keypads
This configuration uses a single UNO-S2 Keypad per zone on each of the CAV6.6s. Each keypad is connected to the UNO System Keypad Port using the CAT-5 T568A RJ-45 wiring configuration. This gives complete control of each of the 12 UNO System Controlled Zones to the corresponding UNO-S2 Keypad.

Individual zone settings such as volume, source selection, on/off, tone control and amplification are controlled through the UNO System Keypad. IR controls for zone and source equipment are controlled through the UNO-S2 Keypad.

Components List:

2 - CAV6.6 Controllers
12 - UNO-S2 Keypads
6 - 845.1 Micro Emitters

Integrate Multiple CAV6.6's



SAMPLE SYSTEM CONFIGURATION 3

Zone Expansion

This configuration uses a SA-ZX3 Keypad Splitter hub to connect up to three UNO-S2 keypads to one CAV6.6 UNO keypad port. For clean installations, use RJ-45 CAT-5 patch cables with the T568A configuration.

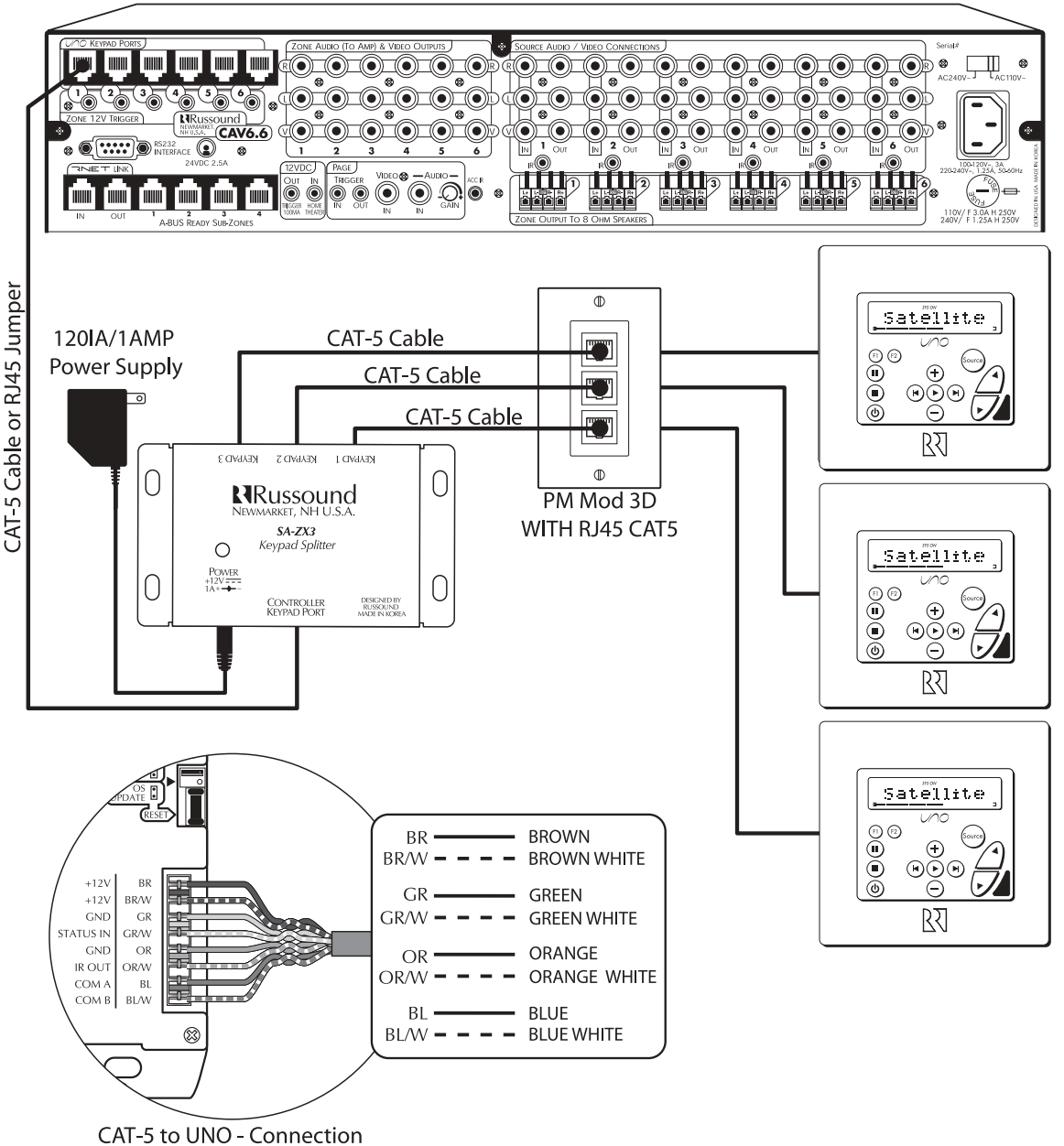
To connect from the SA-ZX3 to an RJ-45 wall plate (optional), use the patch cables to wire for the wall plate to the keypad. Connect the controller keypad port using the patch cable.

Mount the SA-ZX3 Kepad Splitter hub near the controller using screws or hook and loop fastener. The SA-ZX3 requires a 12VDC 1A power supply, such as the Russound 1201A Power Supply.

Components List:

- 1 - CAV6.6 Controller
- 3 - UNO-S2 Keypads
- 1 - SA-ZX3 Keypad Splitter
- 1 - 1201A 12VDC Power Supply
- 1 - PlateMate™ MOD3D
- 3 - MOD RJ-45 CAT-5

Zone Expansion



CAT-5 to UNO - Connection

SAMPLE SYSTEM CONFIGURATION 4

A-BUS Ready Sub-Zone Addition

Adding A-BUS allows sub-zoning of the audio distribution of the CAV6.6 system. This configuration demonstrates sub-zoning of the first zone through the use of an A-BUS expansion hub. Only the first four (1-4) CAV6.6 zones can be expanded using the same numbered (1-4) A-BUS Ready Sub-Zone ports.

Powering the A-BUS Ready Sub-Zones
The four A-BUS Ready Sub-Zone ports must be powered by a Russound A-PS 24VDC 2.5A power supply, which is plugged into the 24VDC 2.5A POWER INPUT jack on the rear of the CAV6.6. This is only required when amplified control modules are used without an A-BUS hub.

A-BUS Hub
The A-BUS Hub is used with A-BUS amplified control modules to create additional audio sub-zones and listening options. Using an A-H2 Hub connected to a CAV6.6 A-BUS Ready Sub-Zone port provides two additional A-BUS Sub-Zones. The A-H2 requires a 24VDC 2.5A Power Supply such as the Russound A-PS power supply. Mount the A-H2 near the CAV6.6 and source equipment using screws or hook and loop fastener.

CAT-5 Connections
The A-H2 Hub connects to the CAV6.6 A-BUS Ready Sub-Zone Port using RJ-45 CAT-5 cables. The cable connects from the CAV6.6 Sub-Zone port to the Expansion Input port on the Hub, then from the Hub keypad output to the RJ-45 wall plate.

Keypad Connections
The A-BUS A-KP2 amplified keypad and the A-VC amplified volume control connect to the Hub via the wall plate. Use the CAT-5 T568A RJ-45 wiring configuration for these connections.

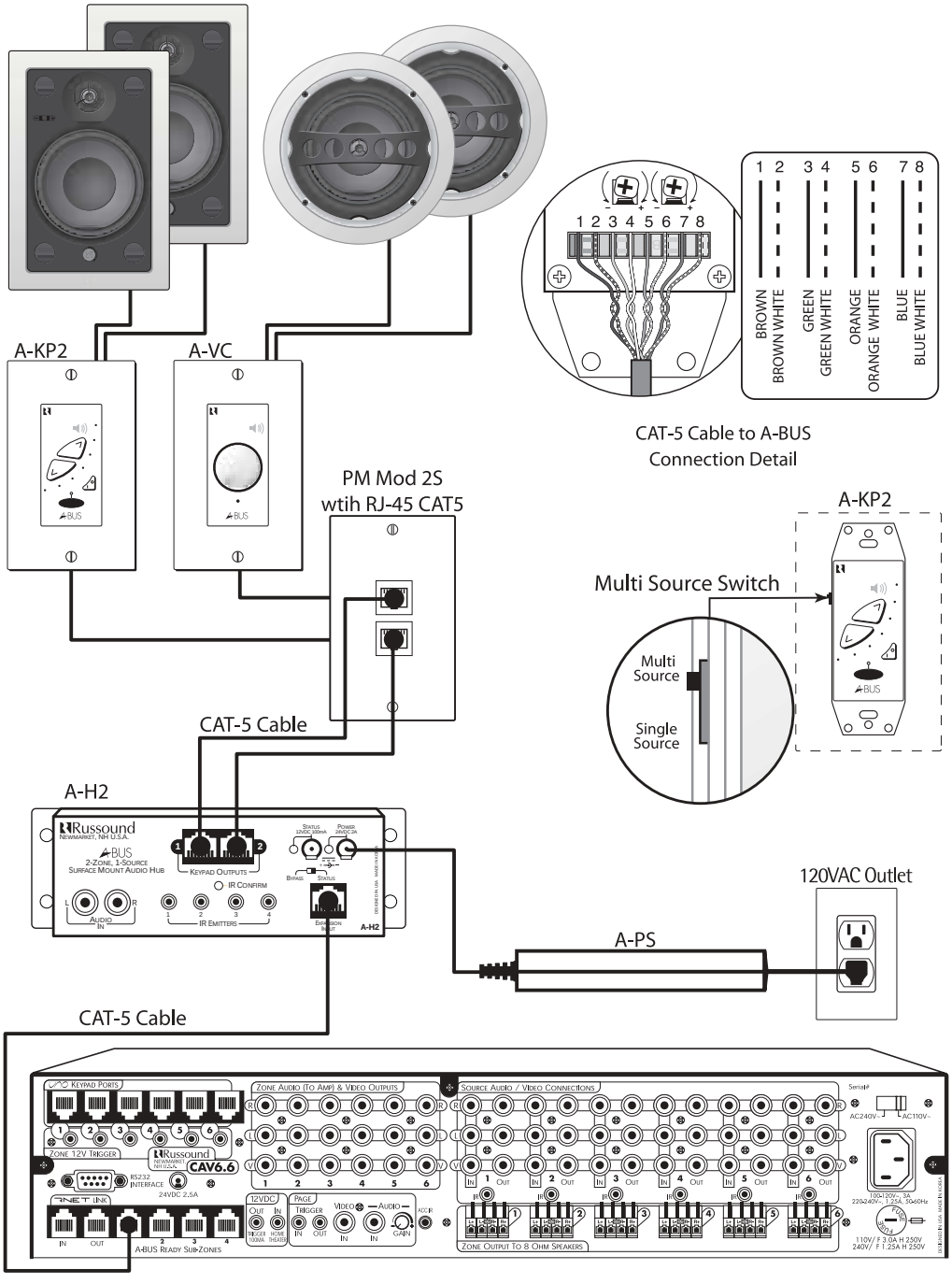
Multi-Source Mode Switch
The Multi-Source Mode switch is located on the side of the A-KP2 keypad. It can be set to multi or single source. When the switch is set to "multi," it allows the selection of sources 1 through 4 on the CAV6.6. If "single" is selected, the A-KP2 will not allow source selection from the keypad, but will allow selections by IR remote.

Speakers
The speakers for the A-BUS Ready Sub-Zone are connected to the individual A-BUS amplified control modules. The speaker wire is connected to the keypad using the screw terminal on the rear of the keypad.

Components List:

- 1 - CAV6.6 Controller
- 1 - A-H2 A-BUS 2-Zone Single Source Surface Mount Hub
- 1 - A-PS Power Supply
- 1 - PlateMate MOD 2S
- 2 - MOD RJ-45 CAT-5
- 1 - A-VC Amplified Volume Control
- 1 - A-KP2 Amplified Keypad
- 1 - pair Advantage Iso-Mount Speakers
- 1 - pair Advantage Twist & Tilt Speakers

A-BUS Ready Sup-Zone Addition



SAMPLE SYSTEM CONFIGURATION 5

Additional Amplification

Additional amplification can be added to the CAV6.6 when more power or more speakers are desired.

This configuration adds an external amplifier to the CAV6.6. The Zone Audio (To Amp) Outputs are variably controlled by the associated UNO-S2 keypad and can be connected to an external amplifier. The figure shows an amplifier used in this manner. The configuration has five zones connected to an additional amplifier with one zone outputting to speakers.

Source Components
In this configuration, three of a possible six audio/video source input components are used. The source components are connected to the source Audio/Video Input Connections at the first three inputs using quality RCA cables.

Zone Audio (To Amp) & Video Outputs
In this option the Zone Audio (To Amp) Outputs for zones 2 through 6 have the outputs connected to the inputs of an external amplifier. The speakers for these zones are run to the output of the external amplifier for each of these zones.

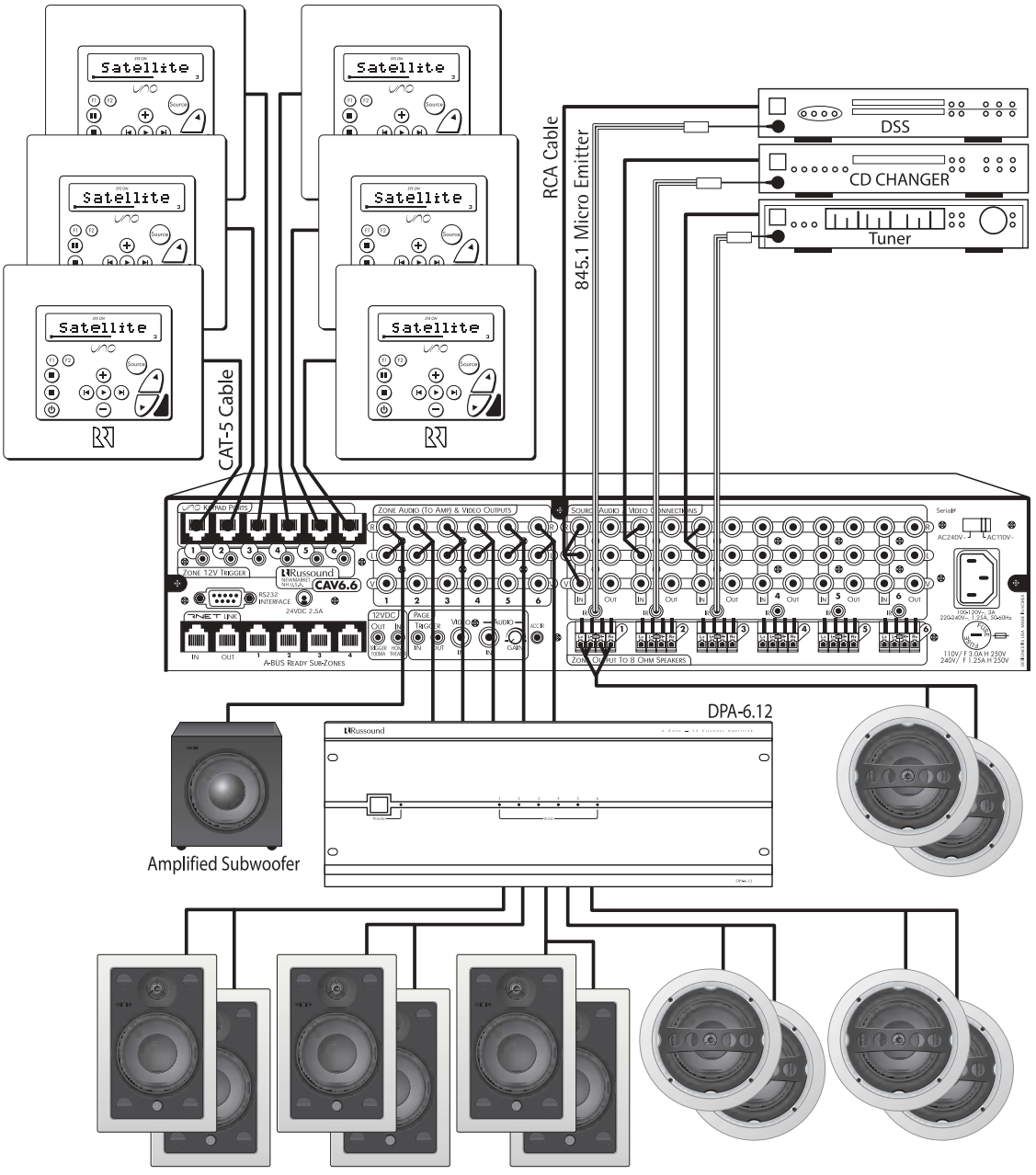
An amplified subwoofer is attached to the Zone Audio Output for zone 1 while its amplified CAV6.6 output speaker connection is also still intact. This allows the user to increase the output of the bass response while keeping the stereo output from the CAV6.6.

Keypads
The configuration uses a single UNO-S2 Keypad per zone on the CAV6.6. Each keypad is connected to the UNO System Keypad Port using the CAT-5 T568A RJ-45 wiring configuration. This gives complete control of each of the 6 UNO System Controlled Zones to the corresponding UNO-S2 Keypad.

Components List:

- 1 - CAV6.6 Controller
- 6 - UNO-S2 Keypads
- 1 - DPA-6.12 Multi-zone Amplifier
- 3 - pair Advantage Iso-Mount Speakers
- 3 - pair Advantage Twist & Tilt Speakers
- 3 - 845.1 Micro Emitters

Additional Amplification



SAMPLE SYSTEM CONFIGURATION 6

Home Theater

Home Theater systems can share sources with a CAV6.6 Controller to provide additional listening and viewing options. In this configuration, the Home Theater Receiver provides a 12VDC signal to the CAV6.6 at the Home Theater 12VDC In Port. The 12VDC signal tells the controller to leave any shared home theater source equipment powered when all CAV6.6 zones are off, temporarily bypassing the source power management feature. The 12VDC connected to the CAV6.6's Home Theater trigger allows the source equipment to be left on.

Source Components
In this configuration, three audio source components are used of a possible six audio/video source inputs. The source components are connected using quality RCA cables to the first three inputs.

Source Loop Outputs
The Source Loop Outputs are connected to the CAV6.6 and to the Home Theater Receiver source inputs using RCA cables. This enables the source equipment to be shared between the two components.

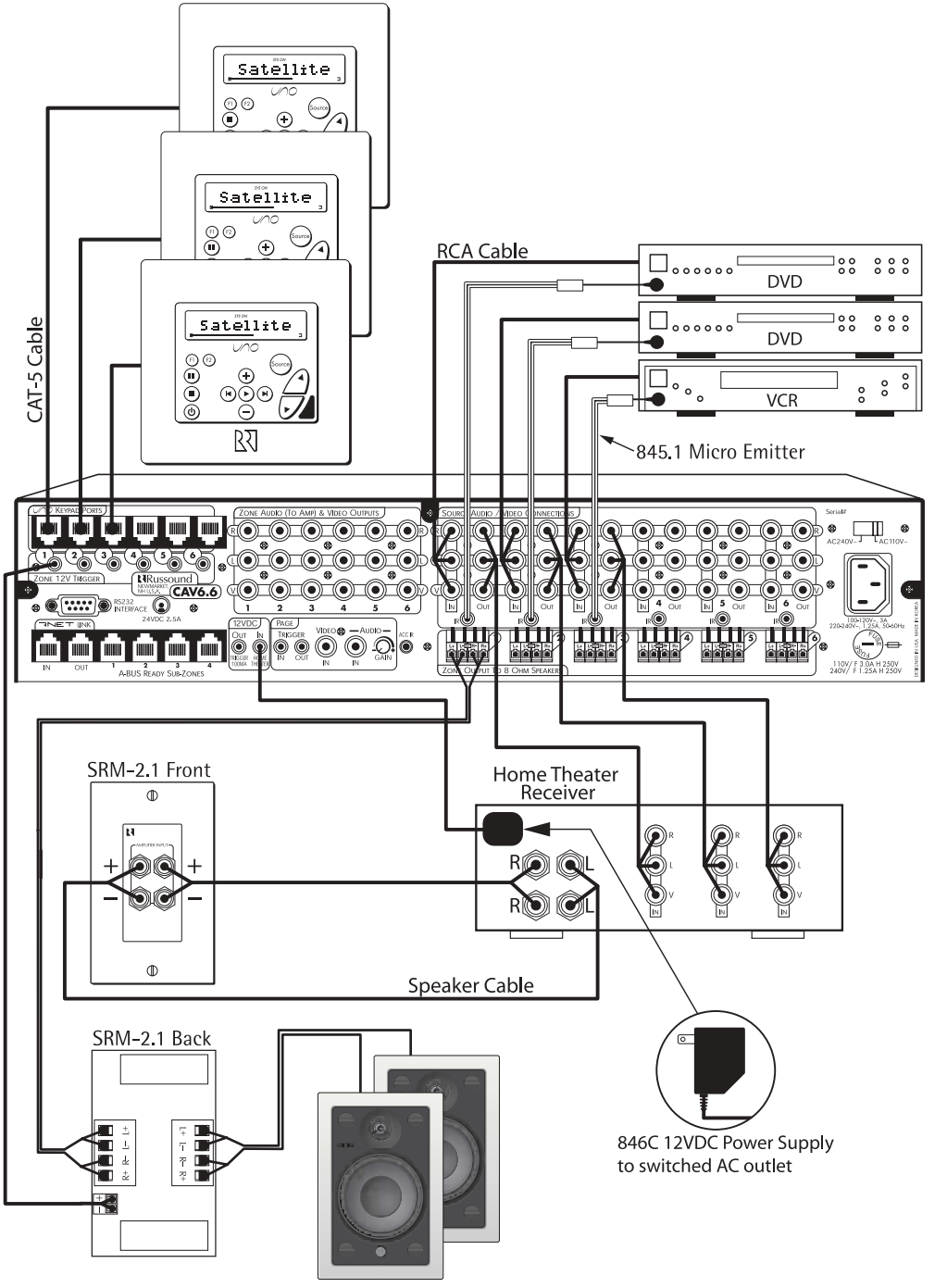
Keypads
Three UNO-S2 Keypads are connected to the CAV6.6 Controller using the CAT-5 T568A RJ-45 wiring configuration. This gives complete control of each of the three zones to the corresponding UNO-S2 Keypad.

Front Left and Right Speakers
Zone 1 uses the same pair of speakers as the Home Theater front main left and right speakers. The amplified output from zone 1 connects to the input on the back of the SRM-2.1 speaker relay module. The Home Theater left and right front main speaker outputs are connected to the input on the front of the SRM-2.1. Zone 1 12V Trigger output is connected to the 12V +/- on the back of the SRM-2.1. When zone 1 is powered on, the SRM-2.1 is triggered allowing audio from zone 1 of the CAV6.6 to power the speakers. When the UNO System Keypad for zone 1 is shut off, 12VDC is no longer provided to the SRM-2.1, and the output of the SRM-2.1 is switched to the Home Theater front left and right amplified speaker output.

Components List:

- 1 - CAV6.6 Controller
- 3 - UNO-S2 Keypads
- 1 - SRM-2.1 Speaker Relay Module
- 1 - pair Advantage Iso-Mount Speakers
- 1 - 846C 12VDC Power Supply
- 3 - 845.1 Micro Emitters

Home Theater



IR CODES

COMMAND TYPE

IR DEVICE CODES

For CAV6.6

Device Codes for TVs:

AOC	0030, 0019
Admiral	0093, 0463
Aiko	0092
Akai	0030
Alaron	0179
America Action	0180
Ampro	0751
Anam	0180
Audiovox	0451, 0180, 0092
Baysonic	0180
Belcor	0019
Bell & Howell	0154
Bradford	0180
Brockwood	0019
Broksonic	0236, 0463
CXC	0180
Candle	0030, 0056
Carnivale	0030
Carver	0054
Celebrity	0000
Cineral	0451, 0092
Citizen	0060, 0030, 0056, 0092
Clairtone	0185
Concerto	0056
Contec	0180
Craig	0180
Crosley	0054
Crown	0180
Curtis Mathes	0047, 0747, 1147, 1347, 0054, 0154, 0051, 0451, 0093, 0060, 0030, 0056, 0145, 0166
Daewoo	0451, 0019, 0092
Daytron	0019
Denon	0145
Dumont	0017, 0019
Dwin	0720, 0774
Electroband	0000
Emerson	0154, 0236, 0463, 0180, 0178, 0179, 0019, 0282
Envision	0030
Fisher	0154
Fujitsu	0179, 0683
Funai	0180, 0179, 0171
Futuretech	0180
GE	0047, 0747, 1147, 1347, 0051, 0451, 0093, 0178, 0021, 0251, 0282
Gibralter	0017, 0030, 0019
GoldStar	0030, 0178, 0056, 0019
Gradiente	0053, 0056
Grunpy	0180, 0179
Hallmark	0178
Harley Davidson	0179
Harman/Kardon	0054
Harvard	0180
Hitachi	0056, 0145
Infinity	0054
Inteq	0017
JBL	0054
JCB	0000
JVC	0053
KEC	0180
KTV	0180, 0030
Kenwood	0030, 0019
LG	0056
LXI	0047, 0747, 0054, 0154, 0156, 0178
Luxman	0056
MGA	0150, 0030, 0178, 0019
MTC	0060, 0030, 0056, 0019
Magnavox	0054, 1254, 0030, 0179
Marantz	0054, 0030
Matsushita	0250
Megatron	0178, 0145
Memorex	0154, 0250, 0463, 0150, 0178, 0056
Midland	0047, 0747, 0017, 0051
Minutz	0021
Mitsubishi	0093, 0150, 0178, 0019
Motorola	0093
Multitech	0180
NAD	0156, 0178, 0166
NEC	0030, 0056, 0019, 0497
NTC	0092
Nikko	0030, 0178, 0092
Onwa	0180
Optimus	0154, 0250, 0166
Optonica	0093, 0165
Orion	0236, 0463, 0179
Panasonic	0051, 0250
Penney	0047, 0747, 1347, 0156, 0051, 0060, 0030, 0178, 0021, 0056, 0019
Philco	0054, 0463, 0030, 0145, 0019
Philips	0054
Pilot	0030, 0019
Pioneer	0166
Portland	0019, 0092
Prism	0051
Proscan	0047, 0747
Proton	0178
Pulsar	0017, 0019
Quasar	0051, 0250, 0165
RCA	0047, 0747, 1047, 1147, 1247, 1347, 1447, 0090, 0051, 0093, 0019
Radio Shack	0047, 0747, 0154, 0180, 0030, 0178, 0056, 0019, 0165
Realistic	0154, 0180, 0030, 0178, 0056, 0019, 0165
Runco	0017, 0030, 0603, 0251, 0497, 0612
SSS	0180, 0019
Sampo	0030
Samsung	0060, 0030, 0178, 0056, 0019
Sansei	0451
Sansui	0463
Sanyo	0154
Scimitsu	0019
Scotch	0178
Scott	0236, 0180, 0178, 0179, 0019
Sears	0047, 0747, 0054, 0154, 0156, 0178, 0179, 0056, 0171
Semivox	0180
Semp	0156
Sharp	0165
Shogun	0019
Sony	0000
Soundesign	0180, 0178, 0179
Squareview	0171
Starlite	0180
Supreme	0000
Sylvania	0054, 0030
Symphonic	0171
TMK	0178, 0056
Tandy	0093
Tatung	0055
Technics	0051, 0250
Technol Ace	0179
Techwood	0051, 0056
Teknika	0054, 0180, 0150, 0060, 0179, 0056, 0019, 0092
Telefunken	0056
Toshiba	0154, 0156, 0060
Toshiba	1256
Vector Research	0030
Victor	0053
Vidikron	0054
Vidtech	0178, 0019
Wards	0054, 0030, 0178, 0021, 0179, 0056, 0019, 0165
White Westinghouse	0463
Yamaha	0030, 0019
Zenith	0017, 0463, 0092

Device Codes for Cable:

ABC	0003, 0007, 0008, 0011, 0013, 0014, 0017
Allegro	0153, 0315
Americast	0899
Archer	0153, 0797
Bell & Howell	0014
Bell South	0899
Century	0153
Citizen	0153, 0315
Comtronics	0040
Contec	0019
Eastern	0002
Emerson	0797
Everquest	0015, 0040
Focus	0400
Garrard	0153
Gemini	0015, 0797
General Instrument	0011, 0476, 0810, 0276
GoldStar	0040, 0144
Goodmind	0797
Hamlin	0009, 0020, 0034, 0259
Hitachi	0011
Hytex	0007
Jasco	0015, 0153, 0315
Jerrold	0003, 0011, 0012, 0014, 0015, 0276, 0476, 0810
Memorex	0000
Movie Time	0063
NSC	0063
Oak	0019, 0007
Optimus	0021
Panasonic	0000, 0021, 0107
Paragon	0000
Philips	0153
Pioneer	0144, 0877, 0533
Popular Mechanics	0400
Pulsar	0000
Quasar	0000
RCA	0021
Radio Shack	0015, 0883, 0315, 0797
Recoton	0400
Regal	0020, 0259
Regency	0002
Rembrandt	0011
Runco	0000
SL Marx	0040
Samsung	0040, 0144
Scientific Atlanta	0008, 0477, 0877, 0017
Signal	0015, 0040
Signature	0011
Sprucer	0021
Starcom	0003, 0015

Stargate	0040, 0015, 0797
Starquest	0015
TV86	0063
Teleview	0040
Tocom	0012, 0013
Toshiba	0000
Tusa	0015
Unika	0153
United Artists	0007
Universal	0153, 0191
Viewstar	0063
Zenith	0525, 0000, 0899
Zentek	0400

Device Codes for Video Acc:

Archer	0160
GC Electronics	0160
Jebsee	0160
Magnavox	0818
Philips	0818
Radio Shack	0160
Sony	0850
TeleCaption	0171

Device Codes for SAT/DSS:

AlphaStar	0772
Echostar	0775, 1005
Expressvu	0775
General Instrument	0869, 0361, 0627
HTS	0775
Hitachi	0819
Hughes Network Systems	0749
JVC	0775
Magnavox	0724, 0722
Memorex	0724
Next Level	0869
Panasonic	0701
Philips	0724, 0722
Primestar	0361, 0627
Proscan	0392
RCA	0566, 0143, 0855, 0392
Radio Shack	0869
Sony	0639
Star Choice	0869
Toshiba	0749, 0790
Uniden	0724, 0722
Zenith	0856

Device Codes for VCRs:

Admiral	0048, 0209
Adventura	0000
Aiko	0278
Aiwa	0037, 0000
Akai	0041
America Action	0278
American High	0035
Asha	0240
Audiovox	0037
Beaumark	0240
Bell & Howell	0104
Broksonic	0184, 0121, 0209, 0002, 0479
CCE	0072, 0278
Calix	0037
Canon	0035
Carver	0081
Cineral	0278
Citizen	0037, 0278
Colt	0072
Craig	0037, 0047, 0240, 0072, 0271
Curtis Mathes	0035, 0060, 0760, 0162, 0041
Cybernex	0240
Daewoo	0045, 0278
Denon	0042
Dynatech	0000
Electrohome	0037
Electrophonic	0037
Emerex	0032
Emerson	0037, 0184, 0000, 0121, 0043, 0209, 0002, 0278, 0479
Fisher	0047, 0104
Fuji	0035
Funai	0000
GE	0035, 0060, 0760, 0048, 0240
Garrard	0000
Go Video	0432, 0526
GoldStar	0037, 0038
Gradiente	0000
HI-Q	0047
Harley Davidson	0000
Harman/Kardon	0081, 0038
Harwood	0072
Hitachi	0000, 0042, 0041
Hughes Net. Sys.	0042
JVC	0067, 0041
Jensen	0041
KEC	0037, 0278
KLH	0072
Kenwood	0067, 0041, 0038
Kodak	0035, 0037
LXI	0037
Lloyd's	0000
Logik	0072
MEI	0035
MGA	0240, 0043
MGN Technology	0240
MTC	0000, 0240
Magnasonic	0278
Magnavox	0035, 0039, 0081, 0000
Magnin	0240
Marantz	0035, 0081
Marta	0037
Matsushita	0035, 0162, 0454
Memorex	0035, 0037, 1037, 0048, 0039, 0047, 0162, 1162, 1262, 0000, 0240, 0104, 0209, 0454
Minolta	0042
Mitsubishi	0048, 0067, 0043
Motorola	0035, 0048
Multitech	0000, 0072
NEC	0067, 0104, 0041, 0038
Nikko	0037
Noblex	0240
Olympus	0035
Optimus	0037, 0048, 1048, 0162, 1062, 1162, 1262, 0104, 0454, 0432
Orion	0184, 0209, 0002, 0479
Panasonic	0035, 0225, 0162, 1062, 1162, 1262, 0454, 0616
Penney	0035, 0037, 0042, 0240, 0038
Pentax	0042
Philco	0035, 0209, 0479
Philips	0035, 0081, 1081, 1181, 0618
Pilot	0037
Pioneer	0067
Profitronic	0240
Proscan	0060, 0760
Protec	0072
Pulsar	0039
Quasar	0035, 0162, 1162, 0454
RCA	0035, 0060, 0760, 0048, 0042, 0240
Radio Shack	1037, 0000
Radix	0037
Randex	0037
Realistic	0035, 0037, 0048, 0047, 0000, 0104
ReplayTV	0614, 0616
Runco	0039
STS	0042
Samsung	0045, 0240
Sanky	0048, 0039
Sansui	0000, 0067, 0209, 0041, 0479,0271
Sanyo	0047, 0240, 0104
Scott	0184, 0045, 0121, 0043
Sears	0035, 0037, 0047, 0000, 0042, 0104
Semp	0045
Sharp	0048
Shintom	0072
Shogun	0240
Singer	0072
Sony	0035, 0032, 1032, 0000
Sylvania	0035, 0081, 0000, 0043
Symphonic	0000
TMK	0240
Tatung	0041
Teac	0000, 0041
Technics	0035, 0162
Teknika	0035, 0037, 0000
Thomas	0000
Tivo	0618
Toshiba	0045, 0043
Totevision	0037, 0240
Unitech	0240
Vector	0045
Vector Research	0038
Video Concepts	0045
Videosonic	0240
Wards	0035, 0060, 0760, 0048, 0047, 0081, 0000, 0042, 0240, 0072
White Westinghouse	0209, 0278
XR-1000	0035, 0000, 0072
Yamaha	0038
Zenith	0039, 0000, 0209, 0479

Device Codes for Cassette Tape Players:

Aiwa	0029, 0197
Carver	0029
Denon	0076
Harman/Kardon	0182, 0029
JVC	0244, 0273
Kenwood	0070
Magnavox	0029
Marantz	0029
Onkyo	0135
Optimus	0027, 0220
Panasonic	0229
Philips	0029
Pioneer	0027, 0220, 0099
Sansui	0029
Sony	0243, 0170, 0291
Technics	0229
Victor	0273
Wards	0027
Yamaha	0097, 0094

IR CODES

Device Codes for Laser Disc Players:

Denon	0059
Mitsubishi	0059
NAD	0059
Optimus	0059
Pioneer	0059
Sony	0201

Device Codes for Digital Audio Tape:

Carver	0158
Harman/Kardon	0158
Magnavox	0158
Marantz	0158
Philips	0158

Device Codes for DVD Players:

Aiwa	0641
Denon	0490, 0634
GE	0522
Harman/Kardon	0582
JVC	0558, 0623
Kenwood	0534
Magnavox	0503
Mitsubishi	0521
Onkyo	0503, 0627
Optimus	0571
Oritron	0651
Panasonic	0490, 0632
Philips	0503, 0539
Pioneer	0525, 0571, 0632
Proscan	0522
RCA	0522
Samsung	0573
Sharp	0630
Sherwood	0633
Sony	0533
Technics	0490
Theta Digital	0571
Toshiba	0503
Yamaha	0490, 0545
Zenith	0503, 0591

Device Codes for Tuner/Amp:

ADC	0531
Adcom	0319, 0304
Aiwa	1089, 1405, 0121, 0405, 0158, 0189
Capetronic	0531
Carver	1089, 1189, 0189, 0042
Casio	0195
Clarinette	0195
Curtis Mathes	0080
Denon	1104, 1160, 0004
Fisher	0042
Garrard	0463
Harman/Kardon	0110, 0891, 0189
JBL	0110
JVC	0074
Kenwood	1313, 1027, 0027, 1569, 0186, 0042
Linn	0189
Lloyd's	0195
Luxman	0166, 0267
MCS	0039
Magnavox	1089, 1189, 0531, 0189, 0391, 0195
Marantz	1089, 1189, 0039, 0189
Modulaire	0195
Nakamichi	0097, 0075
Onkyo	0135
Optimus	1023, 0080, 0186, 0531, 0738, 0801, 0042, 0670
Panasonic	1518, 0039, 0309
Penney	0195
Philips	0189, 1089, 1189, 0391
Pioneer	0080, 0014, 0150, 0531, 0630, 1023
Proscan	1254
Quasar	0039
RCA	1254, 0531
Realistic	0195
Rotel	0007
Sansui	1089, 0189
Sanyo	0801
Sharp	0186
Sherwood	0502, 0491
Sony	1058, 1158, 1258, 0158
Soundesign	0670
Sunfire	1313
Teac	0463
Technics	1308, 1309, 1518, 0039, 0309
Thorens	1189
Vector Research	0218
Victor	0074
Wards	0014, 0080, 0158, 0189
Yamaha	0176, 1176, 0186
Yorx	0195
Zenith	0857

Device Codes for Amp and Misc. Audio:

Aiwa	0406
Carver	0269
Curtis Mathes	0300
Denon	0160
Harman/Kardon	0892
JVC	0331
Linn	0269
Luxman	0165
Magnavox	0269
Marantz	0269, 0321
Nakamichi	0321
Optimus	0300
Panasonic	0308
Parasound	0246
Philips	0892, 0269
Pioneer	0013, 0300
Sansui	0321
Sony	0689
Technics	0308
Victor	0331
Wards	0013
Yamaha	0354

Device Codes for CD Players:

Aiwa	0124, 0157
Burmester	0420
California Audio Labs	0029, 0303
Carver	0157, 0179, 0437
DKK	0000
Denon	0003, 0873
Emerson	0305
Fisher	0179
Garrard	0420, 0393
Genexxa	0032, 0305
Harman/Kardon	0157, 0173
Hitachi	0032
JVC	0072
Kenwood	0826, 0626, 0028, 0037, 0190, 0681
Krell	0157
LXI	0305
Linn	0157
MCS	0029
MTC	0420
Magnavox	0157, 0305
Marantz	0180, 0029, 0157
Mission	0157
NSM	0157
Onkyo	0101, 0868
Optimus	1063, 0032, 0000, 0179, 0305, 0037, 0420, 0145, 0468, 0437
Panasonic	0029, 0303
Parasound	0420
Philips	0626, 0157
Pioneer	1063, 0032, 0305, 0468, 0244
Proton	0157
QED	0157
Quasar	0029
RCA	0179, 0305, 0053, 0764
Realistic	0179, 0420, 0180
Rotel	0157, 0420
SAE	0157
Sansui	0157, 0305
Sanyo	0179
Scott	0305
Sears	0305
Sharp	0861, 0037, 0180
Sherwood	1067, 0180
Sony	0490, 0000, 0185
Soundesign	0145
Tascam	0420
Teac	0420, 0180, 0393
Technics	0029, 0303
Victor	0072
Wards	0157, 0053
Yamaha	0036, 0187
Yorx	0461

Device Codes for Phonograph Players:

Aiwa	0188
Carver	0188
Magnavox	0188
Marantz	0188
Philips	0188

Device Codes for Home Control:

GE	0240
Lutron	0597, 0318
One For All	0167
Radio Shack	0240
Security System	0167
Universal X10	0167
X10	0167

CAV6.6 Controller / Amplifier

Dimensions:	17"W x 12"D x 3.5"H (43 x 30.5 x 9 cm)
Weight:	18 lbs. (8.1 kg)
Power Supply:	110 or 240 VAC
Fuse Rating:	110V input; F3A H 250V US and Canada
	240V input; F1.25A H 250V Europe
Frequency Response:	20Hz-20kHz +/- 0.5dB
Watts per channel:	20 Watts RMS x 12 into 8 Ohms
Total Harmonic Distortion:	0.05%
Signal to Noise Ratio:	88dB
A/V Source Inputs:	7 (Including front AUX A/V input)
A/V Source Outputs:	6
Zones:	6
A-BUS Ready Ports:	4
Source Audio Input:	5V Peak to Peak, 10k Ohms
Source Audio Loop Output:	Unity Gain, 10k Ohms
Source Video Input:	4.5V Peak to Peak, 75 Ohms
Source Video Loop Output:	4.5V Peak to Peak, 75 Ohms
Zone Video Output:	4.5V Peak to Peak, 75 Ohms
Zone Variable Line Audio Output:	5.6V Peak to Peak, 4 Ohms @ 1KHz
Trigger Outputs:	6 Zone, 1 Common. 12VDC 50mA each
Trigger Inputs:	1 Home Theater

UNO-S2 Keypad

Dimensions:	3.65"W x 1.125"D x 4.3"H (9.2 x 10.9 x 2.8 cm)
	Fits 2 Gang UL/CSA Approved Junction Box
Weight:	6 oz. (170 g)
Power Requirements:	12 VDC 180mA
CAT-5 Connection:	110 punchdown

WARRANTY & REPAIR

The Russound CAV6.6 is fully guaranteed against all defects in materials and workmanship for two (2) years from the date of purchase. During this period, Russound will replace any defective parts and correct any defect in workmanship without charge for either parts or labor.

For this warranty to apply, the unit must be installed and used according to its written instructions. If service is necessary, it must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing by an agency or person not specifically authorized in writing by Russound.

This Warranty does not cover:

- Damage caused by abuse, accident, misuse, negligence, or improper installation or operation
- Power surges and lightning strikes
- Normal wear and maintenance
- Products that have been altered or modified
- Any product whose identifying number, decal, serial number, etc. has been altered, defaced or removed

Russound sells products only through authorized Dealers and Distributors to ensure that customers obtain proper support and service. Any Russound product purchased from an unauthorized dealer or other source, including retailers, mail order sellers and online sellers will not be honored or serviced under existing Russound warranty policy. Any sale of products by an unauthorized source or other manner not authorized by Russound shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the unit in a corrugated container with at least three (3) inches of resilient material to protect the unit from damage in transit.

Before returning a unit for repair, call Russound at (603) 659-5170 for a Return Authorization number. Write this number on the shipping label and ship to:

Russound
ATTN: Service
5 Forbes Road
Newmarket, NH 03857

Due to continual efforts to improve product quality as new technology and techniques become available, Russound/FMP, Inc. reserves the right to revise system specifications without notice.

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Russound®

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